A REVIEW OF R. S. BAGNALL'S THYSANOPTERA COLLECTIONS

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By L. A. MOUND

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SYNOPSIS

Between 1907 and 1936 R. S. Bagnall published almost 700 of the 5,000 names now available in the Insect Order Thysanoptera. This review consists largely of an annotated catalogue of these generic and specific names and includes 134 new synonymies and 39 new combinations. The original descriptions have been compared in each case with the material remaining in Bagnall's Collection, lectotypes are selected for many species and the original host and locality data are quoted for each species. Full synonymic histories are not given for each species, however. Biographical notes are included, also a general account of the history of the collections, with a list of the missing species and a list of the species ascribed to Bagnall in error.

INTRODUCTION

R. S. Bagnall was one of the most outstanding amateur entomologists of the first thirty years of this century. A brilliant field worker known mainly for his studies on Thysanoptera and Collembola, he also published numerous papers on other Orders of insects and arthropods. Between the years 1907 and 1936 he published in the Order Thysanoptera alone some 577 species-group names and 100 genus-group names as well as a number of Family and other higher groups. The importance of this contribution can be gauged from the fact that Uzel's Monograph of the Thysanoptera lists only 135 species in 36 genera up to the year 1895. Bagnall and Professor

H. Priesner of Linz were largely responsible for our present knowledge of European Thysanoptera, and between them they also established a framework of classification of the African and Oriental forms. Unfortunately Bagnall was prevented by his business interests from spending as much time as he would have liked on entomology. For many years he was unable to maintain in one place a systematically arranged collection of either insects or literature, and as a result he never produced any synthesis of his work. It was probably this lack of revisionary studies, combined with the discord resulting from the disposal of his collection in 1932, that resulted in his concentration on the green fields of the Collembola.

Bagnall gave up serious work on the Thysanoptera at a time when the species concept within the group was coming under increasing scrutiny (Priesner, 1934–1935 on *Elaphrothrips* ; Speyer, 1934 & 1935 on *Thrips* and *Aptinothrips*). Later studies on heterogonic growth in *Elaphrothrips* by both Hartwig and Hood, and the studies on normal variation in species of *Dendrothrips* and *Haplothrips* by Faure, and *Chirothrips* by zur Strassen were quite different in their basic approach. Bagnall's main effort was directed towards finding differences between individual insects, whereas the present day accent on population ecology and economically important species directs the taxonomist's effort towards finding correlations between different populations. Bagnall's own studies on *Thrips* and *Odontothrips*, as well as on the Australian gall-forming Tubulifera, were based on the assumption that these insects were in all cases extremely host-specific, and his studies on the larger Phlaeothripidae were made without appreciating the extraordinary range of variation now known to exist in many species.

In spite of the advances in knowledge of the Thysanoptera since 1935, many of Bagnall's nominal species have never been re-examined since they were first described. The emphasis placed on some characters has changed over the years and as a result, this review includes 134 new specific and generic synonymies and 39 new combinations. This involves nominal species described by authors other than Bagnall where type material is in the British Museum (Natural History) or was readily available to the present author from other sources. Of the forms described by Bagnall, 66 generic and 383 specific names are accepted here, although this is likely to be reduced by further studies even if some of the present author's new synonymy has to be rejected. One of the major problems is the inferior state of specimens on which some species are based. On more than one occasion a new species appears to have been described solely because a previously described form was not in a suitable state for comparison. Remounting of critical specimens and examination with a modern phase-contrast microscope cannot always resolve the difficulties. Sometimes Bagnall did not appreciate that he was describing artefacts. Thus he describes a species as short and fat when the specimen is merely contracted due to dehydration before death. The exposed dorsal surface of the tube in such contracted specimens of the Phaleothripidae is compared with the full ventral length of the tube of expanded specimens, giving very different tube length/head length ratios.

Bagnall described his species in over 120 separate publications, and the present review was begun as a bibliography and catalogue of the type specimens because of the number of slides in his collection bearing manuscript names. As the work progressed it was found necessary to include new synonymy, and so several genera have also been redefined, with keys to the species examined by the present author, and a few species have been redescribed where this appeared to be of particular value. This work could only have been produced through the co-operation of many other Thysanopterists, to all of whom the author would like to express his thanks. Much of the new synonymy published here for the Terebrantia is derived from conversations with my colleague Edward R. Speyer. Dr. Guy Morison helped with the British species particularly, and during the author's visits to Aberdeen gave valuable advice on field work. Professor H. Priesner, Dr. R. zur Strassen, and particularly Miss Kellie O'Neill have loaned material and given detailed replies to the author's queries in correspondence. Professor S. F. Bailey kindly loaned his manuscript bibliography of Bagnall's Thysanoptera, and specimens were received from the following workers: Professor T. N. Ananthakrishnan; Dr. J. S. Bhatti; Professor A. Bournier; Dr. T. Kono; Dr. J. Pelikan; Mr. E. Reed; Professor L. de Santis; Dr. L. J. Stannard; Dr. E. Titschack. With the exception of figure 11, which was drawn by Mr. Arthur Smith, the text-figures were drawn by Mr. B. R. Pitkin.

BIOGRAPHICAL NOTES

Richard Siddoway Bagnall was born at Winlaton, near Whickham in the County of Durham, just outside Newcastle on Tyne on the 14th July, 1889 (teste the late F. Laing). According to an obituary notice in The Vasculum (July 1962, p. 11), he was the son of Mr. J. S. Bagnall, a member of the firm of R. S. Bagnall and Sons, forgemen and chainmakers of Swalwell and South Hylton. In unpublished notes dated 1921 Bagnall refers to himself as 'Forgemaster and Director of Engineering Works, Rydal Mount, Blaydon on Tyne'. He was educated privately and soon developed an interest in Natural History. In 1903 he was awarded the Hancock Prize for an essay 'An October Day in Gibside' about the joys of beetle collecting. I have been unable to confirm the statement in the obituary notice published by the Royal Entomological Society of London (*Proc. R. ent. Soc. Lond.* C, **27** : 50, 1962–63) that he was trained as a chemist, or the title 'Sir Richard' given to him in the Directory of Zoological Taxonomists, Illinois, 1961. Although an energetic man it appears that his health was never very good, possibly as a result of an attack of meningitis in his youth, and he died on the 19th January, 1962, after a series of cerebral thromboses.

He was elected a Fellow of the Entomological Society of London in 1904, a Fellow of the Linnean Society of London on the 4th November, 1909, and a Fellow of the Royal Society of Edinburgh in 1920. He was also a member of learned societies in Belgium, France, Italy and Spain. He was one of the honorary curators of the Hancock Museum, Newcastle on Tyne, and also one of the founders of The Vasculum in 1915. In 1929 he was presented by Dr. J. W. Harrison to the University of Durham for the honorary degree of D.Sc., and the University Journal for that year refers to him as the best entomological field worker in the country and one of the world's authorities on thrips. The total of his publications probably approached 300 of which 125 referred to Thysanoptera. He was particularly interested in Zoocecidia (with J. W. Harrison) and the apterygote insects and myriapods. He was clearly an excellent naturalist and his contemporaries refer to his remarkable powers of finding small arthropods in the field. However, his habit of pronouncing on ' new species ' with only the help of a hand lens was regarded as rather eccentric. Although of a cheerful and friendly disposition, his methods of curation and mercurial temperament resulted in a number of bitter personal attacks during the 1930s.

According to the account books of the University of Oxford (teste E. B. Poulton) Bagnall was paid as an assistant curator of the Hope Department and as a special demonstrator in the Department of Zoology for the period October 1912 until 1st January, 1914. Thereafter his business affairs seem to have involved him in considerable travelling. During the period 1904–1949 he has been recorded as having 17 different addresses (teste G. D. Morison). As a result he did not always have access to his collections of insects or literature and he had to borrow papers from other workers. Much of his descriptive work was apparently done without reference to specimens of previously described species. He continued to work on Thysanoptera until shortly before his death, although he ceased publication in 1936. As a result his collection contains numerous manuscript names, although in many cases the specimens can now be referred to common British species.

THE COLLECTIONS

As a result of his peripatetic way of life Bagnall, for many years, was unable to keep his collection of Thysanoptera available for study in any one place. Much of it had to be kept in store for varying lengths of time apart from the year he spent at Oxford in 1913. His correspondence and sometimes his publications refer to the fact that he was unable to check some point of detail ' as my collection is not immediately available '. For this reason in 1932 he decided to ask the Trustees of the British Museum (Natural History) to purchase the collection in order that it should be properly curated and more readily available for his use. At that time there were about 17,000 specimens in the collection, of which 5,000 were on slides. There were 430 Type specimens and 750 paratypes. However, in addition to this, Bagnall had presented specimens to the Museum over the preceding years and continued to present them until his death. He also described a number of species from material already in the British Museum collection, and these combined collections now contain about 10,000 slides of more than 1,200 recognized species, in addition to unworked material.

Black slides. During 1913 Bagnall experimented with a new mountant. Many slides made during that year, including some type specimens, have turned dark brown to jet black. When viewed with a strong light the specimens on these slides can be seen to be partially dissolved, leaving a series of large pale crystals. The mountant of one such slide was found to dissolve readily in phenol, but of the specimen only a wing, a leg and some abdominal sclerites remained intact. It is possible that large specimens such as the *Eupathithrips affinis* holotype might be recovered when they are needed, but small specimens such as *Baliothrips biformis* have degenerated too much. Some of the species listed below as missing may have been lost by Bagnall himself in attempting to remount from such blackened slides. The mountant may have been a mixture of balsam in chloral hydrate and phenol, as this has recently been shown to have the same behaviour.

Carded specimens. Bagnall described many species from dry specimens mounted on cards, although this is not always clear from the description. Some of these specimens were seriously damaged by fungus. In a few cases the insect was covered by a network of hyphae, a spectacular condition which was not found to be as serious as an internal fungal attack destroying the intersegmental membranes. The external hyphae have now been dissected free and the specimens removed with the loss of only a few setae in many cases, but internal fungal attacks left several specimens excessively fragile. About 100 specimens, mainly types, have been removed from cards and mounted in balsam although some of these are seriously damaged.

Specimens in tubes. Several hundred tubes were received from Bagnall by the British Museum. Most of these are still unclassified. They are dry, often without labels, but in some cases contain the remains of series from which species were described. Preliminary sorting has not disclosed any of the species listed below as missing.

Labelling of specimens. Data on the slide labels has been checked with the published data for each species. Unfortunately Bagnall sometimes did not write the collection data on the slides and in the text below this is indicated by enclosing such data, and any other information, in square brackets.

Missing species. Type material of the following species has not been found.

- Thripidae
    - *Odontothrips vuilleti*
- Phlaeothripidae
    - *Docessissophothrips frontalis*
    - *Elaphrothrips femoralis, laevicollis, propinquus*
    - *Haplothrips nigricans*
    - *Kleothrips ceylonicus*
    - *Leeuwenia indica*
    - *Phlaeothrips gallicus*
    - *Rhaebothrips major*
    - *Sedulothrips insolens*
    - *Tetracanthothrips borneensis*
    - *Trybomia intermedia*
- Fossil species
    - *Amorphothrips klebsi*
    - *Physothrips connaticornis, gracilicornis*
    - *Procerothrips cylindricornis*

LECTOTYPE DESIGNATIONS

Only in a few of his descriptions of new species did Bagnall designate a specific individual as a ' holotype ' or ' type ', and in most of these cases the designation consists of the statement ' type in Coll. Bagnall '. Where a species was described on a unique the holotype status of the specimen is not in question, but where there was a series Bagnall wrote ' Type ' on two specimens, a male and a female. For this reason, and because the published place of deposition is frequently incorrect, the present author has in many instances selected lectotypes during the course of this work. Such lectotype selection is indicated as LECTOTYPE, and except where indicated to the contrary the specimens listed under each species are now in the general collection of Thysanoptera in the British Museum (Natural History). Lectotypes have been selected from those specimens originally labelled as ' Type ', except where otherwise indicated in the text, after comparing the specimens and their data with the original publication. Where several individuals are mounted together on a slide, however, it was considered desirable to refer to these as syntypes.

SPECIES ASCRIBED TO BAGNALL IN ERROR

Bagnall frequently wrote a new name and the indication ' Type ' on specimens in his collection, but many such names were never published. However, the names were made available to other writers and have in the following cases been published, giving Bagnall as the author.

Dendrothrips cameroni Priesner, 1965 : 281–283. Although ascribed to Bagnall by Priesner when he described this species no specimens bearing this name have been found in Bagnall's collection.

Eurhynchothrips castor and *E. pollux*, nomina nuda in Kelly and Mayne, 1934 : 52.

Frankliniella kellyana Kelly & Mayne, 1934 : 20, a synonym of *F. schultzei* (Tryb.), q.v.

Gamothrips connaticornis Priesner, 1965 : 214, a synonym of *Astrothrips roboris*, q.v.

Oedemothrips australis and *O. nigricans*, nomina nuda in Kelly & Mayne, 1934 : 51.

Sericothrips bedfordi Priesner, 1965 : 243–244, a synonym of *S. occipitalis* Hood, 1917 : 32–34. **Syn. n.** Hood described this species from Nigeria and the present author has studied material from Nigeria, Sudan, Kenya, Malawi, Tanzania and Transvaal.

Tetrachaetothrips, nomen nudum in Priesner, 1949 : 150, a synonym of *Gynaikothrips*.

RECENT THYSANOPTERA

AEOLOTHRIPIDAE

Aeolothrips brevicornis Bagnall

Aeolothrips brevicornis Bagnall, 1915a : 317.
Aeolothrips africanus Moulton, 1936 : 495–496.

Originally described from a single female, this species is apparently common in South Africa. The colour of antennal III, the relative lengths of antennals V, and VI to IX, and the chaetotaxy of the head and pronotum are generally regarded as being variable. The setae on the head and pronotum of the types of *africanus* are particularly stout.

Holotype ♀. South Africa : Cape Town, from a flower, 13.vii.1904 (*E. B. Poulton*).

Allotype ♂ (Moulton, 1936). South Africa : Mossel Bay, vi–vii.1930 (*R. E. Turner* 5146).

Aeolothrips bucheti Bagnall

Aeolothrips bucheti Bagnall, 1934e : 484–485.

Originally described as differing from *citricinctus* and *citricollis* by the shorter sensoria on antennals III and IV, and the greater length of segment IV relative to III, this species is very close to *citricinctus*. They have been collected together in Tangiers, and may yet prove to be synonymous. Antennal IV varies from as long as III to about 0·77 of this length. The sensorium on III varies from 0·31 to 0·38 of the length of that segment in the seven females available.

LECTOTYPE ♀. Tangier : May, 1901 (*G. Buchet*).

Aeolothrips citricinctus Bagnall

Aeolothrips citricinctus Bagnall, 1933c : 649–650.
Aeolothrips citricollis Bagnall, 1934d : 126–127. **Syn. n.**
Aeolothrips citricinctus Bagnall ; Bagnall, 1934e : 483–485.

The species *citricollis* was based on a single specimen and was distinguished from *citricinctus* by the more slender body and antennae. However, in the holotype of *citricollis* antennals III and IV are 5·5 and 4·9 times as long as broad, whereas in the paratype female of *citricinctus* they are 6·1 and 4·6 times as long as broad.

'Types' ♀. Tangier : end of May, 1901 (*G. Buchet*). Paris Museum.

Paratypes ♀ with identical data in B.M. (N.H.).

Holotype ♀ of *citricollis*. France : Perpignan, in fl. *Centaurea solstitialis*, viii.1926 (*R.S.B.*).

Aeolothrips collaris Priesner

Aeolothrips collaris Priesner, 1919a (March) : 119–120.
Aeolothrips fulvicollis Bagnall, 1919 (October) : 253–254. **Syn. n.**
Aeolothrips brevicinctus Bagnall, 1934d : 125.
Aeolothrips collaris f. *fulvicollis* Bagnall ; Priesner, 1948 : 340.

Bagnall distinguished *fulvicollis* originally from *fasciatus* (Linn.) by the yellowish colour of the pronotum, but the species does not appear to differ essentially from *collaris* described that same year from Albania. The dark transverse markings on the fore wings were considered to be narrower in *brevicinctus* than in *collaris*, but these markings are known to be variable, and the chaetotaxy of the ninth abdominal segment in the males is identical in both forms.

LECTOTYPE ♀ of *fulvicollis*. INDIA : Cawnpur, in fl. *Verbascum*, 20.iii.1911 (*A. D. Imms*).

LECTOTYPE ♀ of *brevicinctus*. FRANCE : St. Cyr-sur-Mer, in fl. crucifer, ix.1927.

Aeolothrips ericae Bagnall

Aeolothrips ericae Bagnall, 1920 : 60–61.

This species was distinguished from *fasciatus* (Linn.) by the pale basal antennal joints and the presence of a pair of stout sickle-shaped bristles on the ninth abdominal segment in the male. The species comes near *collaris*, but the median pale wing bar is usually parallel-sided rather than V-shaped, and the tenth abdominal segment of the female rather paler than the preceding segment.

The type is not in the Bagnall collection, and is probably lost. The original description was based on material from various localities including Ilfracombe, and the following specimens can be regarded as syntypes.

Syntypes, 2♀, 1♂. ENGLAND : Devon, Ilfracombe, on *Erica*, viii.1913 (*R.S.B.*).

Aeolothrips gloriosus Bagnall

Aeolothrips gloriosus Bagnall, 1914f : 375–376.

This is a very distinctive species with yellow legs, head, thorax and anterior abdominal segments. Antennal segments one and two, and the basal half of three are also yellow. The original description refers to three females collected by Dr. A. H. Krausse at Sorgono, Sardinia, and submitted to Bagnall by the ‘ German Entomological Museum ’. These specimens are not in the Deutsches Entomologisches Institut or the Humboldt University Museum in Berlin. However, there is in the British Museum (Natural History) a single female of this species labelled ‘ SARDINIA, Sorgono, Coll. Dr. A. H. Krausse, In tube purchased by R. S. Bagnall ’. There were three labels on the right-hand side of the slide, the first two are both marked ‘ Type ’ but the uppermost label is marked ‘ Comp. with Type ’. The male has not been described but there is a male bearing the same collection data as the above female in the British Museum collection. This specimen has a brown head, thorax and tibiae. The ninth abdominal segment resembles *ghabni* Priesner in its chaetotaxy, but the first antennal segment and the ring vein of the fore wing are much paler than in that species.

Aeolothrips intermedius Bagnall

Aeolothrips intermedius Bagnall, 1934d : 123–124.

Although compared originally with *anthyllidis*, this species is very similar to *fasciatus* (Linn.). Males of *intermedius* have no setae longer than the claspers on the ninth abdominal segment, whereas the seta at the base of the claspers in *fasciatus* exceeds the claspers in length. The species was described from England, France, Italy and Switzerland.

LECTOTYPE ♀. SWITZERLAND : Zurich, Uteliberg, 2,500 ft., *Medicago sativa*, vii.1925 (*R.S.B.*).

Aeolothrips melaleucus Haliday

Aeolothrips (*Coleothrips*) *melaleuca* Haliday, in Walker, 1852 : 1117.
Aeolothrips uzeli Bagnall, 1934b : 482. **Syn. n.**
Aeolothrips melaleucus Haliday ; Priesner, 1964 : 19.

Although compared initially with *versicolor*, the specimen on which *uzeli* was based cannot be distinguished at present from *melaleucus*.

Holotype ♀ of *uzeli*. MANCHURIA : Ourga Tsitsikhar (*Chaffanjon*, 174–95).

Aeolothrips propinquus Bagnall

Aeolothrips propinquus Bagnall, 1924j : 269.
Aeolothrips fasciatus var. *propinquus* Bagnall ; Bagnall 1926f : 280.
Aeolothrips propinquus Bagnall ; Titschack, 1964 : 61–65.

Titschack has given a detailed comparison of *propinquus* and *astutus* Priesner. The species resembles *tenuicornis* in the dark ring vein at the fore wing apex, but differs in the proximity of the accessory setae on sternite seven to the hind margin of that segment, and the greater length of the sensoria on antennals III and IV. Although three localities are given in the original publication only a single specimen, labelled ' Type ', remains in the Bagnall collection. This bears the date vi.1924, although the published date of collection was vii.1924.

LECTOTYPE ♀. ENGLAND : Surrey, Woldingham, on *Verbascum nigrum*, vi.1924.

Aeolothrips pyrenaicus Bagnall

Aeolothrips pyrenaicus Bagnall, 1934e : 482–483.

Although belonging to the *fasciatus* group, this species has the ring vein of the fore wing dark as in *tenuicornis*. The male is unknown.

LECTOTYPE ♀. FRANCE : l'Hospitalet, 5,500 ft., on *Cistus*, viii.1926 (*R.S.B.*).

Aeolothrips tenuicornis Bagnall

Aeolothrips tenuicornis Bagnall, 1926f : 280.
Aeolothrips anthyllidis Bagnall, 1932a : 161–162. **Syn. n.**
Aeolothrips clavicornis Bagnall, 1934d : 122–123. **Syn. n.**

This species can be distinguished from the *fasciatus* group by the close proximity of the median setae on the margin of the female seventh sternite, and the presence of sickle-shaped setae on the male ninth tergite. The ring vein of the fore wing is dark at the apex, and the species is often associated with the flowers of *Verbascum*. Bagnall compared *clavicornis* to *pyrenaicus*, although the latter species belongs to the *fasciatus* group. The species *anthyllidis* was distinguished from *tenuicornis* by the narrower wings, the width of the fore wings at the distal third in the two lectotypes being 200μ and 220μ.

LECTOTYPE ♀. ENGLAND : Surrey, Woldingham, on *Verbascum*, vii.1924 (*R.S.B.*).

LECTOTYPE ♀ of *anthyllidis*. ENGLAND : Surrey, Coulsdon, on *Anthyllis*, vi.1925.

LECTOTYPE ♀ of *clavicornis*. ENGLAND : Brighton, on *Ulex*, v.1926 (*R.S.B.*).

Aeolothrips variicornis Bagnall

Aeolothrips variicornis Bagnall, 1932c : 290.

A second specimen of this species has been collected recently from Kenya. Antennal III is clear yellow and the accessory setae on sternite seven are close to the hind margin of that sclerite.

Holotype ♀. TANGANYIKA: Arusha, Rasha-rasha, on Onion, viii. 1926 (*A. H. Ritchie* 509).

Aeolothrips versicolor Uzel

Aeolothrips versicolor Uzel, 1895 : 69–70.
Aeolothrips maculosus Bagnall, 1920 : 62.
Aeolothrips maculosus var. *costalis* Bagnall, 1920 : 62.
Aeolothrips parvicornis Bagnall, 1920 : 62. **Syn. n.**
Aeolothrips tiliae Bagnall, 1913e : 156–157.

The dark markings on the fore wings of *versicolor* vary from a single broad band to two narrow bands connected by a dark line on the hind margin. The species *parvicornis* falls in the latter part of this range and has rather short antennae. Bagnall used *maculosus* as a nomen novum for *melaleucus* of Uzel nec Haliday, but both this and the variety *costalis* are now recognized as *versicolor*. Although Bagnall indicates that he collected both sexes of *tiliae*, only two females remain in the collection.

Holotype ♀ of *costalis*. ENGLAND : Yarnton, on *Fraxinus*, xi.1914 (*R.S.B.*).

LECTOTYPE ♀ of *parvicornis*. HUNGARY: Hunzentmiklos, 28.viii.1910 (*Horvath*).

LECTOTYPE ♀ of *tiliae*. NORWAY: Bygdo near Christiania, on lime leaves, vi.1909 (*R.S.B.*).

ALLELOTHRIPS Bagnall

Allelothrips Bagnall, 1932c : 288–289. Type-species *A. cincticornis*, by monotypy.
Pseudaeolothrips Bagnall, 1932c : 290. Type-species *P. cameroni*, by monotypy.
Arhipidothrips Bagnall, 1932c : 293. Type-species *A. tenuicornis*, by monotypy.
Allelothrips Bagnall; Stannard, 1961 : 9–11.

This genus was defined largely on the number of maxillary palp segments and the form of the antennal sensoria. The three nominal genera were separated on the fact that the maxillary palpi were two-segmented in *Arhipidothrips*, three-segmented in *Pseudaeolothrips*, and seven- or eight-segmented in *Allelothrips*. Stannard has indicated that these characters cannot be used to define genera within this group of Aeolothripids. Unfortunately the granular-like markings on the fore wing, mentioned by Stannard as a generic character, are absent in the males of *tenuicornis*.

This genus is apparently related to *Mymarothrips* in the sub-basal constriction and the granular-like markings (reduced microtrichia) of the fore wing and also the well developed costal setae. The most distinctive character present in the following species is the sculpture of the metanotum (Text-fig. 1); *cameroni* Bagnall, *cincticornis* Bagnall; *pandyani* (R. & M.); *talithae* Faure; *tenuicornis* Bagnall. In addition, *brunneus* Faure is described as having a striate metanotum. Bhatti (1964) indicates that *ananthakrishnani* Stannard is a synonym of *pandyani*. These six species may be separated by use of the following key.

KEY TO *ALLELOTHRIPS* SPECIES

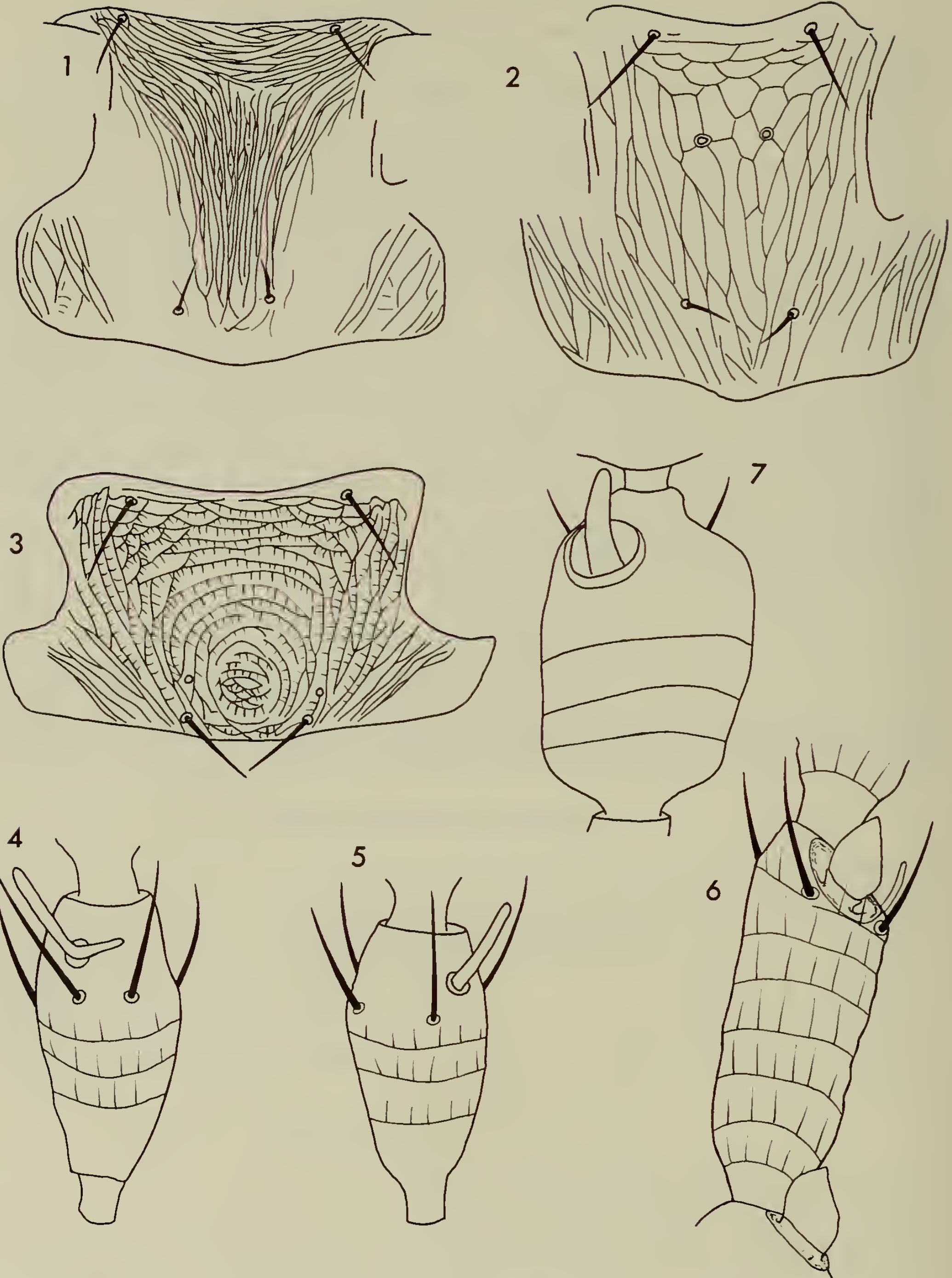
1	Antennals I and II brown, at least in part	2
–	Antennals I and II not brown	3
2	Antennal IV brown in distal half, antennal V subequal to VI–IX	***cameroni***
–	Antennal IV not brown, antennal V much shorter than VI–IX	***tenuicornis***
3	Antennal IV brown with sinuate sensorium, antennals VI–IX pale	***cincticornis***
–	Antennal IV not brown	4
4	Head longer than prothorax	***pandyani***
–	Head shorter than prothorax	5
5	General colour yellow to light brown, antennal V–IX distinctly darker brown	***talithae***
–	General colour brown, antennals V–IX light brown	***brunneus***

Allelothrips cameroni (Bagnall)

Pseudaeolothrips cameroni Bagnall, 1932c : 290–291.
Allelothrips cameroni (Bagnall) Stannard, 1961 : 9.

Bagnall refers to one female from Wad Medani and several females from Merebea. Only the Wad Medani specimen, labelled as 'Type' remains in the Collection.

Holotype ♀. SUDAN: Wad Medani.



Figs. 1–7. Figs. 1–3. Metanotum: 1, *Allelothrips tenuicornis*. 2, *Rhipidothripiella turneri*. 3, *Holarthrothrips tenuicornis*. Figs. 4–6. Antennal segment III: 4 & 5, *Anaphothrips debilis*, left and right antenna of one female. 6, *Holarthrothrips tenuicornis*. Fig. 7. Antennal IV of *Australothrips bicolor*.

Allelothrips cincticornis Bagnall

Allelothrips cincticornis Bagnall, 1932c : 289.

Only one female remains in Bagnall's collection but a specimen was collected by the present author on *Ricinus* at the type locality on 3.x.1963.

Holotype ♀. SUDAN : Wad Medani, on Naal grass in Insectory, 26.ix.1929 (*W. P. L. Cameron*).

Allelothrips tenuicornis (Bagnall)

(Text-fig. 1)

Arhipidothrips tenuicornis Bagnall, 1932c : 293–294.
Allelothrips tenuicornis (Bagnall) Stannard 1961 : 9.

The present author collected six females, one male and several larvae of this species on grass and groundnuts at various places in Wad Medani, Sudan, in October 1963. In life the species is very active and moves about on plants with the antennae waving like a small Hymenopteron.

LECTOTYPE ♀. SUDAN : Blue Nile Province, Darwish, in ' dura ' (*Sorghum*) field, 1.ix.1931, (*W. P. L. Cameron*).

Andrewarthaia kellyana (Bagnall)

Rhipidothrips kellyanus Bagnall, 1924f : 584–585.
Andrewarthia kellyana (Bagnall) Mound, 1967b : 47–51.

This is apparently a common Australian species on *Eucalyptus*. The genus is close to *Desmothrips* but there is a pair of stout setae near the posterior angles of the pronotum.

LECTOTYPE ♀. SOUTH AUSTRALIA : Mount Lofty Ranges, *Eucalyptus leucoxylon*, 22.iv.1923 (*R. Kelly*).

CORYNOTHRIPOIDES Bagnall

Corynothripoides Bagnall, 1926a : 170. Type-species *C. marginipennis*, by monotypy.

Corynothripoides marginipennis Bagnall

Corynothripoides marginipennis Bagnall, 1926a : 171–172.

This remarkable species is apparently only known from a single specimen. The head is produced conically in front of the eyes and there are only two ocelli. The first vein of the fore wing is closely associated with the costa, the costal setae are rather long, and the submedian part of the wing has very reduced microtrichia reminiscent of *Allelothrips*.

Holotype ♀. SIERRA LEONE : Taninahun, 6.ii.1925 (*E. Hargreaves*).

CRANOTHRIPS Bagnall

Cranothrips Bagnall, 1915a : 315. Type-species *Cranothrips poultoni*, by monotypy.
Cranothrips Bagnall ; Mound, 1967b : 53.

Cranothrips poultoni Bagnall

Cranothrips poultoni Bagnall, 1915a : 316.
Cranothrips poultoni Bagnall ; Mound, 1967b : 53–54.

This differs from *Ankothrips* species in having the first, not the second, antennal segment produced at its inner margin into a serrate lobe, and in lacking a stout inter-antennal projection bearing the ante-ocellar setae. The metanotal sculpture consists of a series of arcuate lines concentric about the anterior midpoint of the metanotum.

LECTOTYPE ♀. WESTERN AUSTRALIA : Nr. Freemantle, on flowers, viii.1914 (*E. B. Poulton* No. 17).

DESMOTHRIPS Hood

Desmothrips Hood, 1915a : 57. Type-species *Orothrips australis* Bagnall, by monotypy.
Archaeolothrips Bagnall, 1924k : 627. Type-species *A. fontis*, by monotypy.
Desmothrips Hood ; Mound, 1967b : 54–56.

Bagnall concluded from a study of the number of maxillary palp segments that *Archaeolothrips*, based on a single male, was related to *Aeolothrips*, and that *Desmothrips* was related to *Orothrips*. However in *Orothrips* species all the antennal segments are distinctly separate and the genus is apparently related to *Melanthrips*. All *Desmothrips* species are from Australia.

Desmothrips australis (Bagnall)

Orothrips australis Bagnall, 1914c : 287.
Archaeolothrips fontis Bagnall, 1924k : 627–628.
Desmothrips australis (Bagnall) ; Mound, 1967b : 57–60.

Holotype ♀. AUSTRALIA : Victoria, Healesville, *Xanthorrhoea australis*, 12.x.1913 (*A. E. Shaw*).

Holotype ♂ of *fontis*. AUSTRALIA : Victoria, Healesville, *Erythrea australis*, 21.xii.1913 (*A. E. Shaw* & *R. Kelly*).

Desmothrips obsoletus Bagnall

Desmothrips obsoletus Bagnall, 1924k : 626–627.
Desmothrips obsoletus Bagnall ; Mound, 1967b : 63.

The unique holotype lacks accessory setae on sternites V and VI, and this is unusual in species related to *Desmothrips*.

Holotype ♀. AUSTRALIA : Victoria, Melbourne, Brighton Beach, *Mesembryanthemum* growing in sand, 8.xii.1923 (*R. Kelly*).

Desmothrips propinquus (Bagnall)

Orothrips propinquus Bagnall, 1916b : 397.
Desmothrips propinquus (Bagnall) ; Mound, 1967b : 65–66.

From *australis* this species can be distinguished by the dark costa around the distal pale area of the fore wing.

LECTOTYPE ♀. AUSTRALIA : Victoria, Creswick, on Sweet Pea, 17.i.1915 (*R. Kelly*).

Desmothrips tenuicornis (Bagnall)

Orothrips tenuiconnis Bagnall, 1916b : 397–398.
Desmothrips tenuicornis (Bagnall) ; Mound, 1967b : 68–70.

Although Bagnall refers to three females in the original description of this species only one remains in the collection, labelled ' Type '. In spite of the long, clear yellow third antennal segment, *tenuicornis* is very closely related to *australis*.

Holotype ♀. AUSTRALIA : Victoria, Healesville, *Erythraea australis*, 21.xii.1913 (*A. E. Shaw* & *R. Kelly*).

Franklinothrips tenuicornis Hood

Franklinothrips tenuicornis Hood, 1915b : 164–165. (April).
Mitothrips petulans Bagnall, 1915d : 496–498. (September).
Franklinothrips tenuicornis Hood ; Stannard, 1952 : 14–23.

Holotype ♀ of *petulans*. TRINIDAD : Sangre Grande, vii.1913.

Melanthrips ficalbii Buffa

Melanothrips [*sic*] *ficalbii* Buffa, 1907 : 61.
Melanothrips [*sic*] *angusticeps* Bagnall, 1924a : 10–11.

Bagnall considered that *angusticeps* differed from *ficalbii* in having the head as long as broad instead of strongly transverse.

LECTOTYPE ♀ of *angusticeps*. ENGLAND : Berks., Cholsey, in yellow flower, ? *Potentilla*, vi.1913 (*R.S.B.*).

Melanthrips fuscus (Sulzer)

Thrips fuscus Sulzer, 1776 : 113.
Melanothrips [*sic*] *harrisoni* Bagnall, 1930a : 48–49.
Melanothrips [*sic*] *bisetosus* Bagnall, 1934e : 485–486.
Melanthrips fuscus (Sulzer) ; Speyer & Parr, 1950 : 37–39.

Bagnall described *harrisoni* from a single deformed immature female, and the two subapical external setae on the hind tibiae of *bisetosus* are variable in development.

Holotype ♀ of *harrisoni*. ENGLAND : Sandhurst, ? grass, vi.1929.

Paratypes ♂ & ♀♀ of *bisetosus*. FRANCE : Dercy, *Pisum sativum*, 18.vii.1913 (*L. Bru*).

Melanthrips nigricornis Bagnall

Malanothrips [*sic*] *nigricornis* Bagnall, 1913h : 263–264.
Melanothrips [*sic*] *thymicola* Bagnall, 1934e : 486–487. **Syn. n.**
Melanthrips nigricornis Bagnall ; Titschack, 1960 : 29.

This species belongs to the group of *Melanthrips* which have no cilia on the costal margin of the fore wing between the bases of the two cross veins. The wing is not lighter at the base as it is in *fuscus*. *M. pallidior* Priesner is closely related and may prove to be a smaller and more common form of this species. Bagnall described *thymicola* from two male and two female specimens, all mounted under one cover-glass and in poor condition. These were said to differ from *nigricornis* in possessing a long subapical hair on the hind tibiae. However this hair is present, although not so elongate, in the paratypes of *nigricornis*.

LECTOTYPE ♀. N.E. TUNISIA : Djebel Achkel, on *Convolvulus tricolor*, 27.iii.1913 (*P. A. Buxton*).

Syntypes of *thymicola*. FRANCE : Alpes Maritimes, Cap-Ferrat, on *Thymus vulgare*, 25.ii.1913.

MYMAROTHRIPS Bagnall

Mymarothrips Bagnall, 1928a : 306. Type-species *M. ritchianus*, by monotypy.

Bagnall erected a new family and superfamily of Thysanoptera for this genus, although these groups are no longer used. The wings are narrowed basally and greatly expanded subapically. The microtrichia of the submedian part of the wing are very reduced and the costal setae are long. The antennal segments are short and broad, almost quadrate, with numerous setae, and the maxillary palps are multi-segmented. The genus is probably derived from *Allelothrips* like Aeolothripids, in which group the antennal structure is highly variable between species and the maxillary palps are often much divided.

Mymarothrips ritchianus Bagnall

Mymarothrips ritchianus Bagnall, 1928a : 306–307.

Holotype ♀. TANGANYIKA : Rubunge, on *Coffea arabica*, 21.ix.1926 (*A. H. Ritchie* 526).

RHIPIDOTHRIPIELLA Bagnall

Rhipidothripiella Bagnall, 1932c : 292–293. Type-species *Rhipidothrips turneri* Moulton, 1930a : 197–198, by monotypy.

The single species for which this genus was erected is more closely related to *Allelothrips* than to *Rhipidothrips*. However the fore wings are not as Bagnall stated ' as in *Allelothrips* ', although the costal setae are well developed the wing is barely constricted toward the base. The metanotal sculpture (Text-fig. 2) of *turneri* is quite different from that of *Allelothrips* species. The holotype of *turneri* is in the British Museum and the collection data are SOUTH AFRICA : Orange Free State, Harrismith, iii.1927 (*R. E. Turner*).

Rhipidothrips gratiosus Uzel

Rhipidothrips gratiosus Uzel, 1895 : 66–68.
Rhipidothrips uzelianus Bagnall, 1934c : 482.
Rhipothrips gratiosus Uzel ; Bailey, 1954 : 218.

R. uzelianus is now recognized as a small form of *gratiosus*.

Holotype ♀ of *uzelianus*. SWITZERLAND : Zurich, Uteliberg, on *Brachypodium*, vii.1925 (*R.S.B.*).

HETEROTHRIPIDAE

HOLARTHROTHRIPS Bagnall

Holarthrothrips Bagnall, 1927b : 562–563. Type-species *H. tenuicornis*, by monotypy.

Bagnall proposed a new family, Opadothripidae, to include this genus and the fossil genus *Opadothrips* Priesner. This family name is not used at present.

Holarthrothrips tenuicornis Bagnall

(Text-figs. 3 & 6)

Holarthrothrips tenuicornis Bagnall, 1927b : 563–564.

Although the sensoria on antennals III and IV are similar to those of *Oligothrips oreios* Moulton, the two genera differ in the chaetotaxy of the head and pronotum as well as in the sculpture of the metanotum.

Holotype ♀. FRANCE : St. Cyr-sur-Mer, on Grape, ix.1927 (*R.S.B.*).

THRIPIDAE

Anaphothrips badius (Williams)

Euthrips badius Williams, 1913 : 221–224.
Anaphothrips badius Williams var. *pectens* Bagnall, 1923b : 57.

Bagnall indicated that one of his specimens had finer microtrichia on the eighth tergite than the type of *badius*. There is no significant difference between the forms.

Holotype ♀ of *pectens*. ENGLAND : Oxford, Weston-on-the-Green (*R.S.B.*).

Anaphothrips cameroni (Bagnall)

Euthrips cameroni Bagnall, 1919 : 271–272.

As indicated in the original description, this species is close to *obscurus* (Müll.), from which it differs in the darker colour and the long, even comb on tergite eight. The male has similar appendages to *obscurus* on tergite nine.

Holotype ♀. CANADA : Saskatchewan, Semans, in injured wheat stems, 4.viii.1917 (*A. E. Cameron*).

Anaphothrips gracillimus Priesner

(Text-figs. 4 & 5)

Anaphothrips gracillimus Priesner, 1923b : 82–83.
Anaphothrips debilis Bagnall, 1927a : 568–569. **Syn. n.**
Anaphothrips johni Bagnall, 1933c : 653. **Syn. n.**

A. debilis was distinguished from *gracillimus* by its small size and the darker colour of antennal II, and *A. johni* was stated to be intermediate between these two species. Both *debilis* and *johni* are here regarded as small forms of *gracillimus*, since they do not differ from that species in the form of cuticular sculpture, nor the arrangement of setae. The trichomes of antennal III may be simple, forked, or partially forked with the forks unequally developed (Text-figs. 4 & 5).

LECTOTYPE ♀ (microptera) of *debilis*. FRANCE : L'Almanarre, nr. Hyères, on *Juncus* at edge of salt marsh, ii.1927 (*R.S.B.*).

LECTOTYPE ♀ (microptera) of *johni*. FRANCE : nr. Plage d'Hyères, on Grass, edge of the Salins, ix.1927 (*R.S.B.*).

Anaphothrips obscurus (Müller)

Thrips obscura Müller, 1776 : 96.
Anaphothrips obscurus (Müller) ; Priesner, 1926 : 183–187.
Anaphothrips discrepans Bagnall, 1933c : 651–652.

Bagnall described *discrepans* as a ' small and slender edition of *obscurus* ' and it does not appear to differ from that species in any fundamental way.

LECTOTYPE ♀ of *discrepans*. FRANCE : Arcachon, Mouth of the Teste, on *Juncus*, viii.1926 (*R.S.B.*).

Anaphothrips orchidaceus Bagnall

Anaphothrips orchidaceus Bagnall, 1909a : 33–34.
Anaphothrips orchidaceus ssp. *orchidaceus* Bagnall ; Sakimura, 1967 : 89–94.

This is a very distinctive species with long brown antennae, found occasionally as a pest in greenhouses.

Lectotype ♀. ENGLAND : Northumberland, Wylam-on-Tyne, on *Odontoglossum crispum*, viii.1907 (*R.S.B.*).

Anaphothrips sudanensis Trybom

Anaphothrips sudanensis Trybom, 1911 : 1–4.
Euthrips flavicinctus Karny, 1912b : 115–117. **Syn. n.**
Euthrips (*Anaphothrips*) *alternans* Bagnall, 1913f : 291–292. **Syn. n.**
Euthrips citricinctus Bagnall, 1919 : 270–271.
Anaphothrips bicolor Morgan, 1925 : 4–5. **Syn. n.**
Anaphothrips transvaalensis Faure, 1925 : 150–153. **Syn. n.**

In the original description Trybom states that this species has simple sense cones on antennals III and IV. The two syntypes, still in alcohol, have been borrowed recently from the Riksmuseum Stockholm and mounted in balsam. The coloration has faded seriously, but forked sense cones are clearly visible on the antennal segments. Type specimens of *bicolor*, *flavicinctus* and *transvaalensis* have been studied. The species can be recognized, not only from its coloration, but also by the sculpture of the metanotum and abdominal tergites, the small median setae of the tergites, and the stout teeth of the eighth tergal comb. The pronotum, abdominal segment five and antennal V are all quite variable in colour, from clear yellow to light brown. The adults and larvae live within the leaf sheaths of many Gramineae and cause reddish brown longitudinal markings on the expanded leaves, not unlike rust fungi.

LECTOTYPE ♀. SUDAN : South of Kaka, inner halb Grasscheiden, 7.ii.1901 (*I. Trägardh*). Riksmuseum Stockholm.

LECTOTYPE ♀ of *flavicinctus*. JAVA : Salatiga, Blattgallen von *Homalomena* sp., 17.v.1909 (*Docters v. Leeuwen*). H. Priesner Collection.

LECTOTYPE ♀ of *alternans*. EGYPT : Bahteem, nr. Cairo, on Maize, 1.v.1911 (*F. C. Willcocks*).

Holotype ♀ of *citricinctus*. INDIA : N. Malabar, on Arrowroot leaves, ix.1918 (*Ramakrishna*).

Anaphothrips tamaricis Bagnall

Anaphothrips tamaricis Bagnall, 1926e : 645–646.
Oxythrips navasi Bagnall, 1926e : 648–649.
Anaphothrips (*Tamaricothrips*) *tamaricis* Bagnall; Priesner, 1964 : 49.

This species can be separated from *Oxythrips* species by the presence of a comb on the eighth tergite. The tergal pores are not very close to the hind margins and the median part of the tergites is without sculpture, whereas in *Oxythrips* species the pores are separated from the hind margins only by a distance about equal to their diameter and the median part of the tergites bears several transverse lines of sculpture.

LECTOTYPE ♀. FRANCE : Perpignan, Canet-le-Plage, *Tamarix gallica*, viii.1926 (*R.S.B.*).

LECTOTYPE ♀ of *navasi*. SPAIN : [Saragossa, viii.1913 (*L. Navás*)].

Anaphothrips tamicola (Bagnall)

Euthrips tamicola Bagnall, 1914e : 273–274.

This species is apparently common on its host plant, *Tamus communis*, in Western Europe. The body is dark brown, with the tarsi, tibiae and antennals III and IV yellow. The tenth abdominal segment of the pink larvae has a pair of horns (modified setae) at the apex similar to those found in *silvarum* Priesner and the species of *Oxythrips*.

LECTOTYPE ♀. ENGLAND : Oxford, Yarnton, in flowers of *Tamus communis*, vi.1914 (*R.S.B.*).

Anaphothrips vitalbae Bagnall

Anaphothrips vitalbae Bagnall, 1926e : 644–645.

The antennae of this species, with numerous rings of microtrichia, are very similar to *betae* Uzel. Also the sculpture of the two species, particularly on the thorax, shows some similarities. The genus *Dictyothrips*, defined by Uzel for the single species *betae*, is regarded by the present author as a synonym of *Anaphothrips*.

LECTOTYPE ♀. ITALY : S. Vito (Modena), on *Vitalba*, 9.vii.1917 (*C. Minozzi*).

APTEROTHRIPS Bagnall

Apterothrips Bagnall, 1908c : 185. Type-species *A. subreticulata*, by monotypy.
Apterothrips Bagnall ; Priesner, 1964 : 53.

This genus is commonly regarded as a synonym of *Anaphothrips*, although Bagnall compared the type-species to *subapterus* Haliday, which is now placed in *Tmetothrips*.

Apterothrips secticornis (Trybom)

Thrips secticornis Trybom, 1896 : 620–622.
Apterothrips subreticulata Bagnall, 1908c : 185–186.
Apterothrips secticornis (Trybom) ; Priesner, 1964 : 53.

This species is widespread on grasses, according to Priesner, in North Europe and northern parts of America. The present author has seen specimens from the Falkland Islands.

LECTOTYPE ♀ of *subreticulata*. CANADA : Queen Charlotte Island, Masset, B.M. 1900–102.

APTINOTHRIPS Haliday

Aptinothrips Haliday, 1836 : 445. Type-species *Thrips rufa* Gmelin, by monotypy.
Uzeliella Bagnall, 1908a : 5. Type-species *U. lubbocki*, by monotypy.

Aptinothrips rufus (Gmelin)

Thrips rufa Gmelin, 1790 : 2224.
Uzeliella lubbocki Bagnall, 1908a : 5–6.

Bagnall described his species from a single female collected on sea-weed at Whitley Bay, Northumberland, x.1906.

Asprothrips indicus (Bagnall) **comb. nov.**

(Text-figs. 9 & 10)

Dendrothrips indicus Bagnall, 1919 : 261.

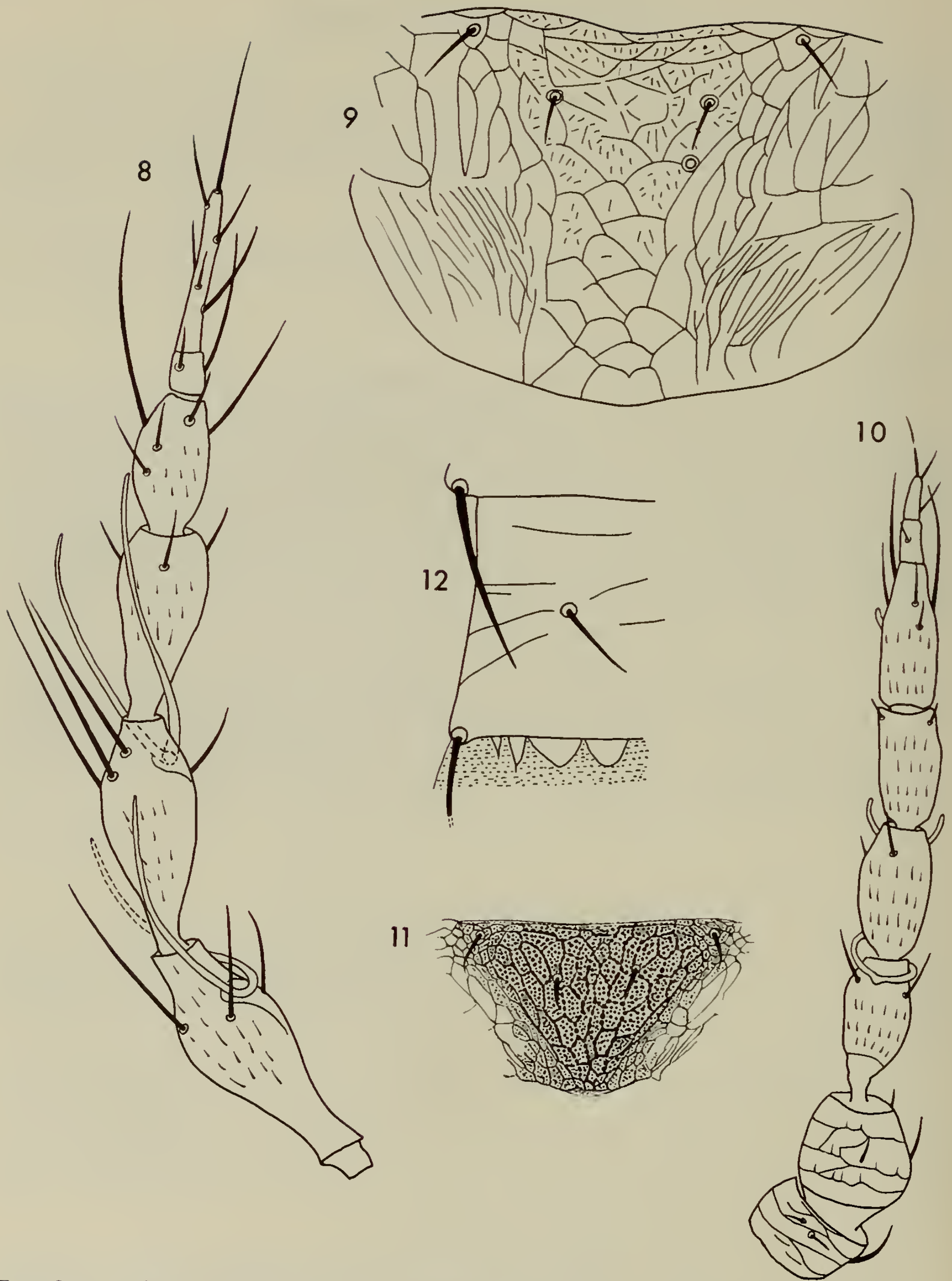
Although described as being ' very near to *Dendrothrips sexmaculatus* ', the species *indicus* must be removed from *Dendrothrips* on account of the wing structure and body chaetotaxy. The cilia arise close to the anterior margin of the fore wing, not as in *Dendrothrips* at some distance from the margin, and moreover they form a continuous row to the wing apex. The wing apex bears two stout setae and the cilia of the hind margin are wavy, not straight. The median setae of the abdominal tergites are not longer than the distance between them, and the marginal setae on the ninth tergite are much shorter than the tenth segment in the female. In these characters *indicus* resembles *antennatus* Moulton, the type-species of *Asprothrips*. They differ, however, in the sculpture of the cuticle, and the structure of the hind tarsi. In *indicus* only the first two pairs of legs have two-segmented tarsi, whereas in *antennatus* all the tarsi are two-segmented. The following description is based on two females and two males, and these have been compared with four females from the type series of *Asprothrips raui* Crawford, a junior synonym of *antennatus* Moulton.

FEMALE : Brown, all tarsi yellow. Antennal II brown, I and VI to VIII light-brown, III to V yellow. Fore wing pale with second quarter dark brown and a pale brown subapical band, posterior marginal cilia dark.

Head broad, eyes occupy about two-thirds of head length ; dorsal surface sculptured ; setae minute 3μ long ; one pair of ocellar setae on anterolateral sides of ocellar triangle, one pair lateral to first ocellus close to compound eyes ; three pairs of postocular setae, the median pair close to posterior ocelli. Mouth-cone short, maxillary palpi three-segmented. Antennae eight-segmented, II large and globular, III small and constricted at base, V and VI broadly united ; trichomes on III and IV broadly U-shaped.

Pronotum with transversely anastomosing sculpture, some of the elongate reticulations with internal markings. Setae small, anterior margin with three pairs, posterior margin with four or five pairs about 8μ long, disc with about six pairs about 3μ long. Metanotum with two pairs of minute setae, internal thoracic skeleton typically Dendrothripid as in *Asprothrips raui*. Fore and mid tarsi two-segmented, hind tarsi undivided. Setae of fore wing on costa and also first and second veins minute, more slender than the microtrichia of the pigmented areas. Wing apex with two stout setae, posterior fringe wavy.

Abdominal tergites with a median groove, laterally with strong transverse sculpture. Median paired setae minute, about 5μ, submedian paired setae close to the tergite pore. Tergites two to nine with one pair of small posterior marginal setae ; eighth tergite without a comb. Sternites with three pairs of small marginal setae.



FIGS. 8–12. Fig. 8. *Euhydatothrips nigripennis*, right antenna. Figs. 9 & 10. *Asprothrips indicus* : 9, Metanotum. 10. Left antenna of male. Fig. 11. *Dendrothrips jeanneli*, metanotum. Fig. 12. *Bregmatothrips ramakrishnae*, left margin of tergite VII of female paratype.

Male : Colour paler than in female. Sculpture and chaetotaxy very similar to female, tergites IX and X almost identical in the two sexes. Sternites III to VIII with a small circular glandular area, sternal marginal setae longer than in the female.

Measurements (in μ) of Lectotype ♀ : Body length 750 ; wing length 500 ; head length 130, breadth 80 ; antennal segments III to VIII length 31, 31, 29, 34, 8, 11 ; tergite IX marginal seta 8 ; hind tibia 115.

LECTOTYPE ♀. [India : Malabar, on Arrow root leaves, ix.1918 (*Ramakrishna*)], Reg. 337.

Astrothrips roboris (Bagnall) **comb. n.**

Tryphactothrips roboris Bagnall, 1919 : 257–258.
Astrothrips (*Gamothrips*) *connaticornis* Priesner, 1965 : 214–216. **Syn. n.**

The unique holotype of this species lacks antennae, but the present author has examined both males and females from Southern Nigeria, along with an undescribed member of the genus. *A. pentatoma* Hood is probably a synonym.

Holotype ♀. [Ghana : Aburi, *Thunbergia laurifolia*, 11.xi.1915 (*W. H. Patterson*)], Reg. 281.

Syntypes ♂ & ♀♀ of *connaticornis*. Sudan : Wad Medani, on climbing plant, i.1931 (*W. P. L. Cameron*).

AUSTRALOTHRIPS Bagnall

Australothrips Bagnall, 1916a : 214–215. Type-species *A. bicolor*, by monotypy.

Australothrips bicolor Bagnall

(Text-fig. 7)

Australothrips bicolor Bagnall, 1916a : 215.

In the extreme reduction of the wing setae and the presence of simple sense cones on the antennae, this species appears to be related to *Rhipiphorothrips cruentatus* Hood. However, in the latter genus the costal setae are quite absent, the first vein of the fore wing is complete and bears very reduced setae, and the second vein is fused to the hind margin. In *Australothrips bicolor* the costal setae are present, although no longer than the tubercles upon which each is set, the first vein is fused to the costa, and the second vein free along the length of the wing as in *Dinurothrips*. The sense cones of antennals III and IV in *bicolor* are set in cup-shaped depressions.

Adults and larvae of this species have recently been received from *Eucalyptus obliqua*, Belair National Park, South Australia. The published type locality is Healesville, but this is not entered on the syntype slides.

Syntypes (5♀, 3♂ on four slides). Australia : Victoria, [Healesville], *Eucalyptus viminalis* (*R. Kelly* 107).

BALIOTHRIPS Uzel

Baliothrips Uzel, 1895 : 204–205. Type-species *Thrips dispar* Haliday, by monotypy.
Euchaetothrips Bagnall, 1916b : 402. Type-species *Thrips kroeli* Schille, 1911. **Syn. n.**
Stenchaetothrips Bagnall, 1926c : 107. Type-species *Stenchaetothrips melanurus*, by monotypy. **Syn. n.**

Bagnall indicated that the genus *Euchaetothrips*, which he erected for *kroeli* Schille, was ' nearest *Thrips* (*Bagnallia* group) '. *Bagnallia*, as used by Bagnall, is synonymous with *Baliothrips*, *Stenchaetothrips* was based on two damaged females, and in the opinion of the present author *biformis*, *dispar*, *kroeli*, *melanurus* and *vitipennis* should be regarded as congeneric. These five species differ from *Thrips* species in the arrangement of the postocular setae. If these setae are numbered from the median pair outwards, then pair two is always displaced to the posterior of pairs one, three and four. These postocular setae are well separated from the eye, the cheeks rather long and straight, and the head broadest across the eyes. The fifth antennal segment is broad at the apex and the metanotum is striate. The species may be separated as follows:—

KEY TO *BALIOTHRIPS* SPECIES

1 Anterior border of pronotum with two pairs of setae, the median pair rather elongate ; maxillary palpi three-segmented . . . . ***kroeli*** Schille
– Anterior border of pronotum with four or more pairs of setae—if one pair is elongate, then these arise just behind the anterior border ; palpi two- or three-segmented . 2
2 One pair of submarginal setae near anterior border of pronotum rather longer than the the other marginal setae 3
– Setae on anterior border of pronotum of equal length, all arising at the margin ; microtrichia of eighth tergal comb simple, each base bears a single apex . . 4
3 Microtrichia of comb on eighth tergite compound, several apices arise from each base ; maxillary palpi two-segmented ; body dark . . . . . ***dispar*** Haliday
– Comb absent from eighth tergite ; maxillary palpi three-segmented ; body pale, abdominal segments IX and X dark . . . . . ***melanurus*** Bagnall
4 Pronotal disc without setae . . . . ***vittipennis*** Bagnall
– Pronotal disc with three or more pairs of setae ; maxillary palpi three-segmented ***biformis*** Bagnall

Baliothrips biformis (Bagnall)

Bagnallia biformis Bagnall, 1913k : 237–238.
Bagnallia biformis var. *adusta* Bagnall, 1913k : 238.
Bagnallia biformis var. *melanurus* Bagnall, 1913k : 238.
Thrips biformis (Bagnall) ; Priesner, 1964 : 95.
Baliothrips biformis (Bagnall) ; Mound, 1967a : 16.

The specimen labelled ' *biformis* v. *adusta* ♀ Type ' and one female and three males labelled ' *biformis* Cotypes ' have been ruined, due to the mountant turning black and the insect body decomposing. The only other material available from the original series is a male and female mounted by C. B. Williams, and it is this female which is here selected as Lectotype.

LECTOTYPE ♀. ENGLAND : Oxford, Weston-on-the-Green, on sedge, 13.viii. 1913 (*R.S.B.*).

Baliothrips dispar (Haliday)

Thrips dispar Haliday, 1936 : 449.
Bagnallia agnessae Bagnall, 1911b : 7–8.
Bagnallia halidayi Bagnall, 1911b : 8–9.
Baliothrips dispar (Haliday) ; Bagnall, 1914c : 297.
Baliothrips exilis Bagnall, 1928e : 154–155.

In 1914, Bagnall acknowledged the fact that his species *agnessae*, based on females, and *halidayi*, based on four males, were synonymous with *dispar*. The two specimens later described as *exilis* are small females of *dispar*.

Syntypes ♀ of *agnessae*. ENGLAND : County Durham, Gibside, on grasses, x.1910.

LECTOTYPE ♀ of *exilis*. [ENGLAND : Manchester, Burnage Lane, on *Holcus lanatus*, 19.viii.1925 (*H. Britten*)].

LECTOTYPE ♀ of *halidayi*. ENGLAND : Epping Forest, on grasses, ix.1910.

Baliothrips melanurus (Bagnall) **comb. n.**

Stenchaetothrips melanurus Bagnall, 1926c : 108.

This species was considered by Bagnall to be related to '*Anaphothrips*, *Bregmatothrips* and *Oxythrips*'. The ocellar and postocular chaetotaxy is similar to the other *Baliothrips* species and the metanotum is striate as in *biformis*. The tergites are devoid of sculpture medially and there is no comb on the eighth tergite. The pale colour with dark abdominal apex is quite distinctive. The present author has examined one female apparently of this species trapped in Mokwa, Northern Nigeria.

Syntypes ♀. SUDAN : Khartoum, on Green Tura (? *Sorghum*) 23.viii.1910 (*King*).

Baliothrips vittipennis Bagnall

Baliothrips vittipennis Bagnall, 1927b : 574–575.

Although probably closely related to *dispar*, the holotype of *vittipennis* lacks a long pair of setae near the anterior margin of the pronotum, and the eighth tergal comb is regular. The maxillary palpi are not visible in the only available specimen.

Holotype ♀. FRANCE : l'Estaque near Marseille, on grasses near sea, ix.1927 (*R.S.B.*).

Bandamia melanophthalma (Bagnall)

Aptinothrips melanophthalmus Bagnall, 1927b : 567–568.
Aptinothrips melanophthalmus Bagnall ; Speyer, 1935 : 498–500.
Bandamia melanophthalma (Bagnall) zur Strassen, 1956 : 16–19.

Bagnall described this species from a single female, and zur Strassen having found the species in the Canary Islands has recently redescribed it as the type of a new monotypic genus. It is apparently a grass-living species.

Holotype ♀. FRANCE : l'Estaque near Marseille, on a crucifer, ix.1927 (*R.S.B.*).

BRACHYUROTHRIPS Bagnall

Brachyurothrips Bagnall, 1921b : 265. Type-species *B. anomalus*, by monotypy.
Brachyurothrips Bagnall ; Bagnall, 1929d : 69.
Brachyurothrips Bagnall ; Costa Lima, 1956 : 559–563.

Costa Lima has suggested from a consideration of the descriptions, that this genus is identical with *Xestothrips* Priesner. However, *Brachyurothrips* is clearly different from both *Selenothrips* and *Xestothrips* in having only one pair of ocellar setae, simple trichomes on antennals III and IV, only one seta on the second vein of the fore wing, and few setae on the pronotum.

Brachyurothrips anomalus Bagnall

Brachyurothrips anomalus Bagnall, 1921b : 265–266.
Brachyurothrips hargreavesi Bagnall, 1929d : 70–71. **Syn. n.**
Brachyurothrips walteri Costa Lima, 1956 : 560–562. **Syn. n.**

The description of *anomalus* was based on a single damaged female from which the antennae are missing. Although *hargreavesi* was described from several females, no attempt was made to compare the two species, and it is clear that Bagnall was in some doubt as to the validity of the second name. No difference can be found between the two forms and they are here regarded as synonymous. The type specimen of *walteri* from Bahia has not been examined, but the author has seen one female collected by G. Bondar on leaves of Malvaceae, 17.iii.1926, at Bahia, Brazil, which is *anomalus*. The description of *walteri* does not indicate any differences from the type of the genus. In addition to the characters given under the genus above, *anomalus* is remarkable in the very long costal setae, the long microtrichia of the wing, and the microtrichia on the median part of each tergite, particularly the eighth just anterior to the comb.

Holotype ♀. SEYCHELLES : Mahé, 1908–1909. No. 97.

Syntypes 6 ♀ of *hargreavesi*. SIERRA LEONE : Njala, on *Acalypha*, 8.viii.1926 (*E. Hargreaves* No. 240).

Bregmatothrips ramakrishnae Bagnall
(Text-fig. 12)

Bregmatothrips ramakrishnae Bagnall, 1923c : 625–626.
Neolimothrips saccharivora Shumsher ; Ananthakrishnan 1966 : 30–31.

Neolimothrips is here regarded as being synonymous with *Bregmatothrips* in view of the close similarity of the setal arrangement of the head and pronotum, and the position of the setae and pori on the abdominal tergites. The weakly sclerotized posterior marginal fringe of the abdominal tergites is distinctly scalloped in *venustus*, the type of *Bregmatothrips*, weakly scalloped in *ramakrishnae*, and slightly indented in *brachycephalus*, the type of *Neolimothrips*. Similarly, the presence of a septum in the elongate distal segment of the maxillary palps in *venustus*, which is apparently not developed in *brachycephalus*, is a matter of degree rather than a basic difference. In addition to the characters given by Ananthakrishnan, these two Indian species can be recognized by the differences in sculpture on the metanotum.

LECTOTYPE ♀. [INDIA : South Arcot, Palur, on Sugar Cane leaf tips, 29.x. 1918], Reg. 238.

Bregmatothrips saccharicola Bagnall

Bregmatothrips saccharicola Bagnall, 1923c : 626–627.

This species is known from a single teneral female from which the antennae are missing. It differs from other *Bregmatothrips* species in having longitudinal striations on the metanotum, the median pair of postocular setae anterior to the submedian pair, and the abdominal tergites with sculpture extending across the median part of these sclerites. The first vein of the fore wing bears about nine setae distal to the junction of the first and second veins. The maxillary palpi are not visible, but there are three pairs of ocellar setae, pair three being on the anterior margins of the ocellar triangle and rather longer than the side of the triangle.

Holotype ♀. SUDAN : Khartoum, on green Sugar Cane, vii.1910 (*King*).

Caliothrips graminicola (Bagnall & Cameron)

Hercothrips graminicola Bagnall & Cameron, 1932d : 417–418.
Caliothrips graminicola (Bagnall & Cameron) ; Faure, 1957 : 79–88.

This species is very close to *indicus* and is known from Sudan, Rhodesia and South Africa.

LECTOTYPE ♀. SUDAN : Wad Medani, Gezira Research Farm, on Naal grass, 18.ix.1930 (*W. P. L. Cameron*).

Caliothrips impurus (Priesner)

Heliothrips impurus Priesner, 1927b : 61.
Hercothrips fumipennis Bagnall & Cameron, 1932d : 413–415.
Caliothrips impurus (Priesner) ; Faure, 1962 : 14.

Originally described from Southern Nigeria, this species is known from Gambia, Sudan, Eritraea and Rhodesia. It can be a serious pest of seedling cotton but may build up large populations on other plants, particularly *Arachis hypogoea*.

Syntypes of *fumipennis* ♀♀ ♂♂. SUDAN : Khartoum, Wellcome Trust Research Laboratories, on Cotton leaves, 2.x.1926 (*W. P. L. Cameron*).

Caliothrips indicus (Bagnall)

Heliothrips indicus Bagnall, 1913f : 291–292.
Caliothrips indicus (Bagnall) ; Faure, 1962 : 12.

In this species the distal extremity of antennal V is barely lighter than the base of VI, whereas in the closely related African *graminicola* antennal V is much lighter than VI.

LECTOTYPE ♀. INDIA : Bengal, Sirsiah, on Indigo, 1908 (*Lefroy*).

Caliothrips sudanensis (Bagnall & Cameron)

Hercothrips sudanensis Bagnall & Cameron, 1932d : 415–417.
Caliothrips sudanensis (Bagnall & Cameron) ; Faure, 1962 : 11.

The distribution and biology of this species in East Africa is apparently similar to *impurus*, however, *sudanensis* has not been recorded from West Africa.

Syntypes ♀♀ ♂♂. SUDAN : Khartoum, Wellcome Trust Research Laboratories, on Cotton, 1.ii.1927 (*W. P. L. Cameron*).

Cestrothrips karnyi (Bagnall)

Rhamphothrips karnyi Bagnall, 1927b : 572–573.
Cestrothrips karnyi (Bagnall) ; Priesner, 1964 : 83–84.

The two females and single male available are too opaque to attempt a redescription of this unusual species. The prothorax, which is wider at the posterior than the anterior, recalls *Mycterothrips*, as does the small head and long mouth cone. Contrary to the descriptions the eighth tergal comb is well developed, long and fine as in *Mycterothrips* and the metathoracic furca appears to have a spinula. However, there are no traces of any microtrichia on the tergites which are so typical of *Mycterothrips*. The nine-segmented antennae and the absence of major pronotal setae may indicate some relationship with *Anaphothrips*.

LECTOTYPE ♀. FRANCE : Iles d'Hyères, Porquerolles, *Erica arborea*, ix.1927 (*R.S.B.*).

Chaetanaphothrips signipennis (Bagnall)

Scirtothrips signipennis Bagnall, 1914b : 22–23.
Chaetanaphothrips signipennis (Bagnall) ; Stannard, 1956b : 175.

As Stannard has pointed out, this species differs from *orchidii* in having a pair of setae anterolateral to the first ocellus, a glandular area on the third sternite of the female, and the fifth seta from the mid-line on the hind margin of the pronotum less than half as long as the third.

Holotype ♀. CEYLON : Peradeniya, under leaf-sheath of banana, 16.vi.1913 (*A. Rutherford*).

Chirothrips aculeatus Bagnall

Chirothrips similis of Priesner, 1926 : 142, nec Bagnall, 1909.
Chirothrips aculeatus Bagnall, 1927a : 567.
Chirothrips angusticornis Bagnall, 1932b : 186–187.
Chirothrips aculaetus Bagnall ; zur Strassen 1960 : 168.

Bagnall stated that *aculeatus* was ' readily separated from *similis* by the long pointed end of the abdomen ', and indicated that the species had been fully described by Priesner on material from Austria and Hungary. No types were designated but one of the original specimens collected by Pillich in Hungary is here designated as lectotype. Some of the material referred to by Bagnall as *aculeatus* was later described by him as *angusticornis* on the grounds that these specimens were smaller and paler.

LECTOTYPE ♀. HUNGARIA : Simontornya, ' Weingarten Gramineen ', 5.v. 1924 (*F. Pillich*).

LECTOTYPE ♀ of *angusticornis*. FRANCE : Gavarnie, on grass, no date (*Randall Cooke*).

Chirothrips africanus Priesner

Chirothrips africanus Priesner, 1932a : 46–47.
Chirothrips aethiops Bagnall, 1932b : 184.

This species is closely related to *manicatus* Hal. and *pallidicornis* Pr. It may be recognized by the straight exterior margin of antennal II similar to *pallidicornis*, the four setae on the hind vein of the fore wing as in *manicatus*, and the fact that antennal VII is distinctly longer than VIII. Priesner notes that this is a common species in Egypt, and the present author has taken it several times in Wad Medani, Sudan. It has been recorded from Cyprus and India. Further comments on this specimen will be found under *manicatus*.

Holotype ♀ of *aethiops*. SUDAN : Wad Medani, Gezira Research Farm, on *Medicago sativa*, 5.ii.1931 (*W. P. L. Cameron*).

Chirothrips manicatus Haliday

Thrips (*Chirothrips*) *manicata* Haliday, 1836 : 444.
Chirothrips similis Bagnall, 1909f : 34–35.
Chirothrips ammophilae Bagnall, 1927b : 564–565. **Syn. n.**
Chirothrips similis var. *productus* Bagnall, 1932b : 184.
Chirothrips ambulans Bagnall, 1932b : 185.
Chirothrips laingi Bagnall, 1932b : 185–186.
Chirothrips manicatus Haliday ; zur Strassen, 1959 : 89.

The above synonymy is taken from the studies on *Chirothrips* by zur Strassen (1959 and 1960). Priesner (1964 : 110) is not fully in agreement with these conclusions, particularly concerning the nominal species *pallidicornis* Priesner. In the present author's opinion, if *pallidicornis* is a distinct species[1] then *ammophilae* (syn.

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[1] Zur Strassen (1967, *J. ent. Soc. sth. Afr.* **29** : 33) has recently shown that *pallidicornis* is to be regarded as a valid species.

laingi) is also distinct from *manicatus*. If, however, *pallidicornis* is synonymous with *manicatus*, then not only *ammophilae* but also, in all probability, *africanus* must be included as synonyms. These forms have been separated on the length of the tenth abdominal segment, the length of the ante-ocular projection, and the concavity or straightness of the outer margin of antennal II. Speyer (in litt.) has indicated that *pallidicornis* from New Zealand was restricted to *Dactylis glomerata* and *manicatus* was found on *Alopecurus pratensis*. Since *Chirothrips* species breed within the seeds of grasses it is possible that this close relationship between insect and host plant has facilitated the production of host-limited forms.

LECTOTYPE ♀ of *similis*. ENGLAND : Durham, Gibside, on grass, 1908 (*R.S.B.*).

Syntypes ♀ of *ammophilae*. FRANCE : Plage d'Hyères, *Ammophila*, ix.1927 (*R.S.B.*).

LECTOTYPE ♀ of *productus*. SPAIN : Puigcerda, *Avena*, viii.1926 (*R.S.B.*).

LECTOTYPE ♀ of *ambulans*. GALICIA : ex Collection Schille.

LECTOTYPE ♀ of *laingi*. FRANCE : Plage d'Hyères, *Ammophila*, ix.1927 (*R.S.B.*).

Chirothrips meridionalis Bagnall

Chirothrips meridionalis Bagnall, 1927a : 566.

This is one of the few described species of *Chirothrips* with a forked trichome on antennal IV. It is readily separated from *aculeatus* Bagnall by the absence of any ante-ocular head projection and the weakness of the external projection on antennal II. The species has been found not only in the Mediterranean region, but also in North West Pakistan, and Mokwa, North Nigeria.

LECTOTYPE ♀. FRANCE : Villefranche, on *Brachypodium ramosum*, ii.1927 (*R.S.B.*).

Craspedothrips minor (Bagnall) **comb. n.**

Physothrips minor Bagnall, 1921d : 393–394.

Zur Strassen (1966b) erected *Craspedothrips* for *hargreavesi* Karny, 1925, a species widespread in Africa. Bagnall described *minor* from two damaged females, one from Coimbatore and the other from Maddur in Southern India, and these specimens are very similar to *hargreavesi*. There are three pairs of ocellar setae and no sternal accessories, and both pairs of metanotal setae are at the anterior border. The sensoria on antennals III and IV are thick and sausage-like, and antennal IV is constricted in the apical half. The posteromarginal fringes of the tergites and sternites are not so well developed as in *hargreavsi*. *Toxothrips ricinus* Bhatti, 1967 is very similar to *minor*.

LECTOTYPE ♀. INDIA : Mysore, Maddur, *Ipomea staphylina*, 30.viii.1918 (*Ramakrishna*).

DENDROTHRIPOIDES Bagnall

Dendrothripoides Bagnall, 1923c : 624–625. Type-species *D. ipomeae*, by monotypy.

The abdominal tergites of the species included in this genus bear laterally numerous, very stout microtrichia. The setae on the ninth abdominal tergite are very long and stout, rather flattened apically. In the structure and reduction of the wing setae the genus resembles *Asprothrips*.

Dendrothripoides ipomeae Bagnall

Dendrothripoides ipomeae Bagnall, 1923c : 625.
Dendrothripoides ipomeae Bagnall ; Faure, 1941 : 107–110.

In describing a second species in this genus, *venustus*, Faure gave a number of additional details concerning the structure of *ipomeae*. The species is represented in the British Museum (Natural History) by the type series, and also females and larvae from Bermuda.

Syntypes ♀♀ ♂. INDIA : Mysore, Maddur, on *Ipomea staphylina*, 30.viii.1918 (*Ramakrishna*).

DENDROTHRIPS Uzel

Dendrothrips Uzel, 1895 : 159–160. Type-species *D. tiliae* Uzel, a synonym of *D. ornatus* Jablonowsky, 1894, designated by Priesner, 1925.
Dendrothripiella Bagnall, 1927a : 567. Type-species *D. phyllireae*, by monotypy.
Dendrothrips Uzel ; Faure, 1960a : 16.

Bagnall described *Dendrothripiella* ' As in *Dendrothrips*, but with the antenna 7-jointed '. Faure has shown that the divisions of the apical antennal segments in this group are variable, and the genus is now used for species with antennae seven- to nine-segmented.

Dendrothrips decoris (Bagnall)

Dendrothripiella decoris Bagnall, 1927b : 568–570.
Dendrothrips decoris (Bagnall) ; Faure, 1960a : 16.

This species is distinctively coloured, having antennals III, IV and V, and also the abdomen yellow, with the head, thorax and wings dark. The antennae are seven- or eight-segmented.

LECTOTYPE ♀. FRANCE : Plage d'Hyères, [*Phyllirea* or *Quercus coccifera*], ix.1927 (*R.S.B.*).

Dendrothrips jeanneli Bagnall

(Text-fig. 11)

Dendrothrips jeanneli Bagnall, 1919 : 260–261.
Dendrothrips jeanneli Bagnall ; Faure, 1964 : 62–69.

Faure redescribed this species without being able to compare the unique holotype with his South African specimens. However, his description clearly applies to this species, although one important character was not mentioned. The sternites of the female bear far more setae, six or more pairs, than any other described member of the genus. The present author has also seen numerous males and females of this species caught in yellow water-traps at Mokwa, Central Nigeria. In a small percentage of the specimens examined the terminal antennal segment is undivided, as in the holotype, whereas most individuals have nine segmented antennae.

Holotype ♀. [Kenya : Lake Victoria, Kisumu], 6.xii.1911 (*Alluaud & Jeannel*).

Dendrothrips ornatus (Jablonowsky)

Thrips ornatus Jablonowsky, 1894 : 93–99.
Dendrothrips ornatus var. *schillei* Bagnall, 1927b : 568.
Dendrothrips schillei Bagnall ; Bagnall, 1930a : 49.

The form *schillei* was described by Bagnall as having more extensive pale areas on the fore wing than *ornatus*. This species is variable in pigmentation and is occasionally a pest of *Ligustrum* (Privet) in England.

Holotype ♀ of *schillei*. Galicia : ex collection Schille.

Dendrothrips phyllireae (Bagnall)

Dendrothripiella phyllireae Bagnall, 1927a : 567–568.
Dendrothrips phyllireae (Bagnall) Faure, 1960a : 20.

This species was designated as the type of a monotypic genus, *Dendrothripiella*, which only differed from *Dendrothrips* in having seven-segmented antennae. Bagnall suggested that the species was near to *saltator* Uzel, but the sculpture of the metanotum and tergites is very different in these two forms. The specimen here selected as lectotype is labelled ' cotype ', but it is the only member of the type series remaining in the Bagnall collection.

LECTOTYPE ♀. France : nr. Hyères la Plage, on *Phyllirea angustifolia*, ii.1927 (*R.S.B.*).

Dendrothrips saltator Uzel

Dendrothrips saltatrix Uzel, 1895 : 164–165.
Dendrothrips peucedani Bagnall, 1932a : 162–163.
Dendrothrips saltator Uzel ; Mound, 1965 : 141–144.

Bagnall's species *peucedani* was based on some rather large specimens of *saltator*. The species may be recognized from the form of the sculpture on the abdominal tergites.

Syntypes ♀♀ ♂♂ of *peucedani*. ENGLAND : Kent, Tankerton, on *Peucedanum officinale*, vi.1931 (*R.S.B.*).

Dendrothrips sexmaculatus Bagnall

Dendrothrips sexmaculatus Bagnall, 1916b : 401.
Dendrothrips sexmaculatus Bagnall ; Faure, 1960b : 269–277.

Faure has redescribed this species from abundant material collected in South Africa. Bagnall's type series came from Ceylon but it is possible that the species is African in origin. It differs from other *Dendrothrips* species in the transverse pale band across the abdomen.

LECTOTYPE ♀. CEYLON : Peradeniya, 1913 (*A. Rutherford* No. 47).

Dinurothrips frontalis (Bagnall)

Heliothrips frontalis Bagnall, 1916a : 213–214.
'*Dinurothrips*' *frontalis* (Bagnall) ; Stannard & Mitri, 1962 : 218.

Known from a single female, this species shows some resemblance to *Tryphactothrips*. However, the fore wing chaetotaxy and wing retaining setae on abdominal tergites VII and VIII are similar to *Dinurothrips hookeri*.

Holotype ♀. AUSTRALIA : Victoria, Healesville, *Senecio dryandeus* (*R. Kelly*).

Dinurothrips vezenyii Bagnall

Dinurothrips vezenyii Bagnall, 1919 : 256.

This species is known only from the holotype, a damaged micropterous female which lacks antennae. The specimen is very similar to *hookeri* Hood, the type of the genus, which is widespread in the tropics. It may possibly be a micropterous form of that species. The last abdominal segment is shorter than in *hookeri*, and the radially elongate reticulations which border the eyes of *hookeri* are subdivided in *vezenyii*.

Holotype ♀. ARGENTINE : Tucuman, xi.1905 (*Vezenyi*).

Elixothrips brevisetis (Bagnall)

Tryphactothrips brevisetis Bagnall, 1919 : 257.
Elixothrips brevisetis (Bagnall) ; Stannard & Mitri, 1962 : 202–205.

Stannard & Mitri record this species from various islands in the Western Pacific.

Holotype ♀. SEYCHELLES : Mahé, [Cascade, 800–1,500 ft.], 1909.

EUHYDATOTHRIPS Bagnall

Euhydatothrips Bagnall, 1926c : 99. Type-species *E. nigripennis*, by monotypy.

This genus, based on a single male specimen mounted laterally on a slide, was compared to *Hydatothrips* Karny. The latter genus is a synonym of *Sericothrips*, whereas *Euhydatothrips* is a Heliothripine related to *Caliothrips*. The type specimen has been remounted dorsoventrally and is redescribed below, but many features are still not apparent. The genus may be defined as follows.

Antennae similar to *Caliothrips ;* head reticulate, longer than broad, without large setae, mouth cone reaching middle of prothorax ; prothorax reticulate, transverse ; legs elongate as in *Sericothrips* ; wings long and narrow, upper vein with wide interval in setal distribution, lower vein with four widely spaced setae ; abdomen pale but apparently reticulate ; armature of ninth and tenth tergites as in *Helionothrips* ; sternal setae apparently long, two thirds as long as the sternites.

Euhydatothrips nigripennis Bagnall
(Text-fig. 8)

Euhydatothrips nigripennis Bagnall, 1926c : 99–100.

MALE : Colour pale yellow, but brown on vertex, metathorax, and antennals I, II, distal half of V and VI to VIII ; fore wings dark brown. Antennae Heliothripid, trichomes on III and IV forked, long, that on IV extends to distal tip of V. Head reticulate, ocelli close together, elevated : setae minute, about 2μ long, one pair on anterolateral margins of ocellar triangle, ? one pair lateral to fore ocellus ; two pairs of postocular setae situated between posterior ocelli and hind margin of eye.

Pronotum reticulate ; one pair of anteromarginal setae and one pair of postero-angular setae 12μ long ; disc with five or six pairs of setae 8μ long. Meso and metathorax reticulate. Legs elongate, tarsi undivided. Microtrichia of fore wings stout ; upper vein with 8 (or 6) setae basally, and two near wing apex ; lower vein with four widely spaced setae ; wing apex pointed with two subapical setae.

Abdominal tergites with three pairs of setae, median pair posterior to median pores, close to hind margin. Reticulations equiangular medially, elongate laterally, apparently with some internal sculpture. Tergite IX with two pairs of stout thorn-like setae and tergite X with a circle of six papillae as in *Helionothrips*.

Holotype ♂. [TANGANYIKA] : Arusha, x–xi.1905 (*Katona*).

EUPHYSOTHRIPS Bagnall

Euphysothrips Bagnall, 1926e : 646. Type-species *E. minozzii*, by monotypy.

This genus was erected for a unique species which bears two pairs of long postocular setae on the head and two pairs of elongate postero-angular prothoracic setae, The prothorax also bears numerous dorsal setae.

Euphysothrips minozzii Bagnall
(Text-fig. 21)

Euphysothrips minozzii Bagnall, 1926e : 646–648.
Euphysothrips menozzii Bagnall, 1927a : 570. [Emendation].
Euphysothrips minozzii Bagnall ; Bagnall, 1933c : 653.
Euphysothrips minozzii Bagnall ; Priesner, 1964 : 69.

This species has been described by both Bagnall and Priesner, but the chaetotaxy of the head is not referred to in full by either author. There are four pairs of postocular setae, the first and third being twice as long as the second and fourth. There are also four pairs of ocellar setae ; 1, in front of the first ocellus ; 2, lateral to the first ocellus ; 3, within the ocellar triangle just behind the first ocellus ; 4, posterolateral to the hind ocelli.

The specimen labelled ' type ' is very seriously damaged and only one paratype female remains in Bagnall's collection. The data are as follows :

FRANCE : nr. Perpignan, fl. *Clematis vitalba*, viii.1926 (*R.S.B.*).

Frankliniella distinguenda Bagnall

Frankliniella distinguenda Bagnall, 1919 : 264–265.
Frankliniella distinguenda Bagnall ; Moulton, 1948 : 66–67.

Although Moulton did not examine the types, the notes given in his key to the species of *Frankliniella* clearly refer to *distinguenda*. Bagnall compared this species to *melanommata* Williams but antennal III of *distinguenda* does not have a shelf-like thickening around the pedicel. The interocellar setae arise within the ocellar triangle (position 2), and the teeth of the eighth tergal comb are slender and widely spaced. Moulton records the species from Argentina and there is material in the British Museum (Natural History) from a composite shrub, Espirito Santo, Brazil, 12.x.1928.

LECTOTYPE ♀. PARAGUAY : Puerto Max, 1905 (*Vezenyi*).

Frankliniella fulvipes Bagnall

Frankliniella fulvipes Bagnall, 1919 : 265–266.
Frankliniella fulvipes Bagnall ; Moulton, 1948 : 82.

Moulton states that the eighth tergal comb in this species is weak and irregular. This is true in the type specimens, but in some females from Brazil apparently of this species the teeth of the comb are finely pointed with broad triangular bases. The tibiae and tarsi, and antennals III to V are yellow, although the hind tibiae are sometimes shaded brown medially.

LECTOTYPE ♀. ARGENTINA : Tucuman, xi.1905 (*Vezenyi*).

Frankliniella gemina Bagnall

Frankliniella gemina Bagnall, 1919 : 265.
Frankliniella gemina Bagnall ; Moulton, 1948 : 67.

This species is very closely related to *F. distinguenda*, with which it was originally collected. The species apparently differ in the length of the major setae, but the type specimens of *gemina* are all damaged and poorly mounted. The antero-angular seta on the pronotum of *distinguenda* is almost twice as long as the anteromarginal seta. In *gemina* these two setae are nearly equal in length.

LECTOTYPE ♀. PARAGUAY : Puerto Max, 1905 (*Vezenyi*).

Frankliniella intonsa (Trybom)

Thrips intonsa Trybom, 1895 : 188–190.
Frankliniella breviceps Bagnall, 1911b : 2.
Frankliniella intonsa (Trybom) ; Priesner, 1926 : 251.

Bagnall described *breviceps* on a single female lacking antennae taken at Acton, England. This specimen is not in the Bagnall collection but the species is accepted as a synonym of the widespread *intonsa*.

Frankliniella oxyura Bagnall

Frankliniella oxyura Bagnall, 1919 : 267–268.
Frankliniella oxyura Bagnall ; Moulton, 1948 : 60.

On account of the small interocellar setae this species was placed by Moulton in the *minuta*—group of *Frankliniella* species. Material has been examined from Paraguay and Brazil.

LECTOTYPE ♀. Paraguay : Puerto Max, 1905 (*Vezenyi*).

Frankliniella pallida (Uzel)

Physopus pallida Uzel, 1895 : 101–102.
Frankliniella ononidis Bagnall, 1934e : 491–492. **Syn. n.**
Frankliniella ononidis Bagnall ; Priesner, 1964 : 62.

F. ononidis was distinguished from *pallida* by the longer setae on antennals III and IV, and the presence of fewer setae on the fore wing. These forms may be distinguished from *intonsa* by the teeth of the eighth tergal comb. In *intonsa* the comb teeth are long and regular, longer than the width of their triangular bases. In *pallida* many of the teeth, particularly laterally, have multiple apices, and the triangular bases are relatively wider.

Syntypes ♀ of *ononidis*. France : St. Palais-sur-Mer, on *Ononis repens*, 1.vii. 1914 (*Vuillet*).

Frankliniella priesneri Bagnall

Frankliniella priesneri Bagnall, 1923c : 627.

Bagnall distinguished this species from *pallida* through the possession of shorter setae at the abdominal apex, and longer postocular and prothoracic anteromarginal setae. However, the postoculars and prothoracic setae of the lectotype are no longer than in *pallida*, i.e. 18μ and 45μ. It seems probable that *priesneri* is a synonym of *pallida*.

LECTOTYPE ♀. Tunisia : Tunis, 26.ii.1903 (*Biro*).

Frankliniella schultzei (Trybom)

Physopus schultzei Trybom, 1910 : 151–154.
Frankliniella sulphurea Schmutz, 1913 : 1019. **Syn. n.**
Frankliniella delicatula Bagnall, 1919 : 263. **Syn. n.**
Frankliniella dampfi Priesner, 1923a : 64. **Syn. n.**
Frankliniella dampfi ssp. *interocellaris* Karny, 1925a : 126. **Syn. n.**
Frankliniella africana Bagnall, 1926c : 100–101.
Frankliniella anglicana Bagnall, 1926f : 281–282. **Syn. n.**
Frankliniella kellyana Kelly and Mayne, 1934 : 20. **Syn. n.**

The species here regarded as *schultzei* can be divided into two distinct colour forms, the dark '*schultzei*-form', and the pale '*sulphurea*-form'. In many collections made by the author in Sudan these two colour forms have been taken in the same flowers. This is also true of collections made in Kenya and Uganda. The pale forms have been compared with pale '*F. dampfi*' from Egypt and '*F. sulphurea*' from India, and the dark forms have been compared with '*F. interocellaris*' from Uganda, and *schultzei* (det. J. C. Faure) from South Africa. Apart from colour, no other morphological differences have been found between these two forms. It has been suggested that *sulphurea* can be separated from *schultzei* on the shape of the base of the internal trichome on antennal VI. In all the material examined by the author in this group this trichome had an elongate base, no specimens were seen with a circular base to the trichome. The situation with regard to this species in East Africa and the Nile Valley appears to be similar to that of the colour variants of *Frankliniella occidentalis* in California (Bryan and Smith, 1956).

Holotype ♀ of *africana*. GHANA : Aburi, fls. of *Strophanthus gratus*, 9.xi.1915 (*W. H. Patterson*).

Holotype ♀ of *anglicana*. ENGLAND : Berkshire, Besselsleigh, on pine, 13.vi.1914 (*R.S.B.*).

Holotype ♀ of *delicatula*. [KENYA] : nr. Nairobi, 1.i.1912 (*Alluaud & Jeannel*).

Syntypes ♀ of *interocellaris*. UGANDA : Kampala, *Ipomea hildebrantei*, 26.xii.1920 (*H. Hargreaves*).

Syntypes ♀♀, ♂♂ of *kellyana*. SOUTH AUSTRALIA : Glen Osmond, Waite Institute, 28.ii.1928 (*G. Samuel*).

Frankliniella setipes Bagnall

Frankliniella setipes Bagnall, 1919 : 266–267.

This species is very close to *fulvipes* Bagnall from which it differs in having the tibiae uniformly brown contrasting with the yellow tarsi.

LECTOTYPE ♀. ARGENTINA : Tucuman, xi.1905 (*Vezenyi*).

Frankliniella tritici (Fitch)

Thrips tritici Fitch, 1855 :
Frankliniella varicorne Bagnall, 1919 : 268–270. **Syn. n.**
Frankliniella tritici f. *varicornis* Bagnall ; Moulton, 1948 : 87.

Moulton recognized three forms of *tritici* in addition to the nominal species. These forms were distinguished on colour alone, and no morphological differences are apparent between the *varicorne* holotype and typical specimens of *tritici*.

Holotype ♀ of *varicorne*. CANADA : Saskatchewan, Semans, on *Petalostemon purpureum*, 4.viii.1917 (*A. E. Cameron*).

GLAUCOTHRIPS Karny **stat. n.**

Glaucothrips Karny, 1921 : 240, as subgenus of *Pseudothrips* Bagnall. Type-species *Pseudothrips glaucus* Bagnall, by monotypy (not stated but indicated by tautonymy).

Karny failed to include any species in his new subgenus *Glaucothrips*, but in view of the fact that he derived the name from Bagnall's species *glaucus*, this failure is regarded as an unfortunate printer's error. *Glaucothrips* differs from *Pseudothrips* in having eight- rather than nine-segmented antennae, and the median setae on tergites III to VI are not closer together than their length. *Pseudanaphothrips* is rather similar but has both pairs of metanotal setae at the anterior margin, and the median tergal setae are very short.

Glaucothrips glaucus (Bagnall) **stat. n.**

(Text-figs. 17 & 18)

Pseudothrips glaucus Bagnall, 1914b : 23.
Pseudothrips (*Glaucothrips*) *glaucus* (Bagnall) ; Karny, 1921 : 240. [By inference].
Pseudanaphothrips turneri Moulton, 1936 : 498–499. **Syn. n.**

The holotype of *glaucus* consists only of the thorax and abdomen. For the following redescription a series of females from South Africa, Cape Province, 1966, on plum trees has been used, as well as the holotype of *turneri*.

FEMALE : Length 800–1000μ. Colour brown, pterothorax orange internally ; legs and antennals I and III paler ; wings shaded. Head rather wider than long (140μ × 100μ) ; postocular region with about eight transverse lines ; three pairs of ocellar setae present, pair III on anterolateral margins of triangle, a little shorter than one side of triangle ; five pairs of postocular setae, pair II from midline close to posterior ocelli. Antennae eight-segmented, lengths of segments in μ ; 12 ; 25 ; 28 ; 28 ; 25 ; 33 ; 8 ; 10. Pronotal disc transversely striate, with about 15 pairs of setae 8μ long ; one pair of postero-angular setae 25μ ; four pairs of posteromarginals 8–12μ long. Metanotum reticulate, median setae not at anterior margin. Fore wings 700μ ; first vein with 15–22 setae (4 + 6 + 9), second vein with 13–15 regularly spaced setae. Abdominal tergites with transverse reticulations medially ; median pair of pores about three times their own diameters from tergal hind margin ; median setae on VI to VIII at least one third as long as the tergites ; comb on VIII long and regular, microtrichia with stout bases. Sternites with three or four pairs of posteromarginal setae.

Holotype ♀. SOUTH AFRICA : Cape Town, *Sebaea* (*R. Marloth*).

Holotype ♀ of *turneri*. SOUTH AFRICA : Mossel Bay, vi.1930 (*R. E. Turner*).

HELIONOTHRIPS Bagnall

Helionothrips Bagnall, 1932e : 506. Type-species *Heliothrips brunneipennis*, by monotypy.
Helionothrips Bagnall ; Faure, 1961a : 134.

Helionothrips brunneipennis (Bagnall)

Heliothrips brunneipennis Bagnall, 1915a : 318.
Helionothrips brunneipennis (Bagnall) ; Faure, 1961a : 134.

The key given by Faure to separate the species of *Helionothrips* has not been found satisfactory when used on the material in the British Museum (Natural History). The presence or absence of a pale subapical band on the fore wing may not be consistent in all species, and there is doubt about the constancy of pigmentation of antennal II. In the description of *kadaliphus* (R. & M.), antennal II is stated to be either pale or dark, and females from New Guinea examined by the present author compare well with *brunneipennis* except in this character.

LECTOTYPE ♀. CEYLON : Peradeniya, *Litsea chinensis* leaves (*A. Rutherford*, 3648).

HERCINOTHRIPS Bagnall

Hercinothrips Bagnall, 1932e : 506. Type-species *Heliothrips bicinctus*, by original designation.
Hercinothrips Bagnall ; Mound, 1966a : 243–244.

Apart from the type-species *bicinctus*, Bagnall included in this genus *femoralis* Reuter and *pattersoni*, and he added that he thought that *errans* Williams should be included. This latter species is now placed in *Helionothrips*.

Hercinothrips bicinctus (Bagnall)

Heliothrips bicinctus Bagnall, 1919 : 258–259.
Hercinothrips bicinctus (Bagnall) ; Faure, 1957 : 89–100.

This species is known as a minor pest in glasshouses in temperate regions and is widely distributed in the subtropics. It has been reported damaging bananas in Kenya and the Canary Islands.

LECTOTYPE ♀. BELGIUM : Brussels, *Chamaedorea fragans* in glasshouses, xii.1907 (*R.S.B.*).

Hercinothrips pattersoni (Bagnall)

Heliothrips pattersoni Bagnall, 1919 : 259–260.
Hercinothrips pattersoni (Bagnall) ; Faure, 1961a : 152.

Apart from a single female taken recently on lime tree flowers at Ibadan, Nigeria, 12.v.1964, this species is known only from the type series.

Holotype ♀. GHANA : Aburi, *Granadilla* leaves, 11.xi.1915 (*W. H. Patterson*).

Isochaetothrips seticollis (Bagnall)

Taeniothrips seticollis Bagnall, 1915b : 591–592.
Isochaetothrips seticollis (Bagnall) ; Moulton, 1928a : 227.

This species, described on a single female, was designated as the type of *Isochaetothrips* by Moulton. The first pair of ocellar setae are absent, and pair III lie on the anterior margins of the ocellar triangle. The metanotum is longitudinally striate and both pairs of setae are on the anterior margin. The tergites are devoid of sculpture medially, the eighth tergal comb is rather coarse, and the sternites are without accessory setae.

Holotype ♀. Western Australia : nr. Perth, Mundaring Weir, flowers of small *Acacia*, 3.viii.1914 (*E. B. Poulton*).

Isochaetothrips setipennis (Bagnall)

Physothrips setipennis Bagnall, 1916b : 399.
Physothrips ignobilis Bagnall, 1926c : 101–102. **Syn. n.**
Physothrips myrsiniicola Bagnall, 1926c : 103. **Syn. n.**

This can be distinguished from *seticollis* by the more numerous pronotal setae, the longer and finer microtrichia of the comb on tergite eight, and the median pair of metanotal setae which are posterior to the lateral pair. The species *ignobilis*, based on two females, is here regarded as a small form of *setipennis*, and *myrsiniicola*, which was based on a single male, cannot be distinguished from males of *setipennis* except that one seta is not developed in the row of setae on the first vein of one fore wing.

LECTOTYPE ♀. Australia : Victoria, Healesville, on cultivated white briar, 25.i.1914 (*R. Kelly*).

LECTOTYPE ♀ of *ignobilis*. Australia : Victoria, Warburton, *Myrsine variabilis*, 17.i.1926 (*R. Kelly*).

Holotype ♂ of *myrsiniicola*. Australia : Victoria, Warburton, *Myrsine variabilis*, 17.i.1926 (*R. Kelly*).

ISONEUROTHRIPS Bagnall

Isoneurothrips Bagnall, 1915b : 592. Type-species *I. australis*, by monotypy.

Isoneurothrips australis Bagnall

Isoneurothrips australis Bagnall, 1915b : 592–593.

Although described originally from Western Australia, *australis* has since been recorded from many subtropical areas. The density of the abdominal pigmentation is quite variable.

LECTOTYPE ♀. Western Australia : Perth, Mundaring Weir, *Acacia* flowers, 3.viii.1914 (*E. B. Poulton* no. 16).

Isoneurothrips multispinus (Bagnall) **comb. n.**

Thrips multispinus Bagnall, 1910d : 699–700.

This differs from *australis* in having three pairs of ocellar setae ; pair I anterolateral to first ocellus, II lateral to first ocellus near compound eyes, III within ocellar triangle on a line connecting the anterior margins of the hind ocelli. Sternal and pleurotergal accessory setae are absent, but there are twelve to thirteen pairs of setae on tergites three to five mainly near the lateral margins. The eighth tergite bears a complete comb in both sexes and the median pair of metanotal setae are very close to the anterior border of the sclerite.

LECTOTYPE ♀. HAWAII : Kilauea, vii.1895 (*Perkins* 575).

Isoneurothrips orientalis Bagnall **comb. rev.**[2]

Isoneurothrips orientalis Bagnall, 1915b : 593–594.
Thrips (*Isothrips*) *orientalis* (Bagnall) ; Priesner, 1940 : 54.

This species differs from *australis* most importantly in lacking sternal accessory setae. However the chaetotaxy of the head and wings, and the structure of the metanotum, are sufficiently similar for the species to be regarded as congeneric.

LECTOTYPE ♀. BORNEO : Sarawak, Matang, 1,000 ft., in white flower, 20.xii. 1913 (*G. E. Bryant*).

Limothrips cerealium Haliday

Thrips (*Limothrips*) *cerealium* Haliday, 1836 : 445.
Limothrips minor Bagnall, 1927b : 565–567. [Synonymized by Morison, 1948 : 48].

Syntypes ♀ of *minor*. SARDINIA : Sorgono (*A. Krausse*).

Limothrips denticornis Haliday

Thrips (*Limothrips*) *denticornis* Haliday, 1836 : 445.
Limothrips incertis Bagnall, 1926e : 642–643. **Syn. n.**

The sublateral setae on the ninth abdominal tergite of male *denticornis* specimens can be as long as the extreme lateral setae or only half that length in a single series of specimens. These setae are not always uniform on the two sides of the body. When elongate these setae are slender, but when short they are stout. *L. incertis* is regarded as an extreme example of this variation.

LECTOTYPE ♀ of *incertis*. FRANCE : Ax-les-Thermes, *Hordeum* sp., viii.1926 (*R.S.B.*).

MICROCEPHALOTHRIPS Bagnall

Microcephalothrips Bagnall, 1926c : 113. Type-species *Thrips abdominalis* Crawford, by monotypy.

The single species placed in this genus is widespread in the tropics and subtropics on Composite flowers (Jagota, 1961).

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[2] Sakimura (1967, *Pacific Insects* **9** : 429-436) treats *Isothrips* as a subgenus of *Thrips*.

ODONTOTHRIPIELLA Bagnall

Odontothripiella Bagnall, 1929a : 47. Type-species *Odontothrips fasciatipennis*, by original designation.

The three species included in this genus differ from *Odontothrips* species in the shorter ocellar setae, the long thin apex of the trichome on antennal VI, the relatively shorter fore wing setae, and the single seta at the posterior angles of the pronotum. In species of *Odontothrips* the male phallus bears a highly distinctive array of spines, but in *Odontothripiella* species the phallus is unarmed as in most Terebrantia.

Odontothripiella australis (Bagnall)

Odontothrips australis Bagnall, 1918a : 204–205.
Odontothripiella gracilis Bagnall, 1929a : 48. **Syn. n.**

The male specimens referred to by Bagnall as *australis* may represent *bispinosus*. The two species were collected together originally, and the present author has examined a series of females of *australis* collected recently in New South Wales with four males of two species of *Odontothripiella*. *O. gracilis* is here regarded as a small form of *australis*.

Syntypes ♀. Western Australia : Perth, Mundaring Weir, in red papilionaceous flowers, 3.viii.1914 (*E. B. Poulton*).

Holotype ♀ of *gracilis*. South Australia : Renmark, Hotel Gardens, Sweet Allysum, 3.x.1926 (*R. Kelly*).

Odontothripiella bispinosa (Bagnall)

Odontothrips bispinosus Bagnall, 1918a : 203–204.

The unique female upon which this species is based was collected with *australis* and is very similar to that species except for the pair of remarkable spines on the abdomen.

Holotype ♀. Western Australia : Perth, Mundaring Weir, in red papilionaceous flower, 3.viii.1914 (*E. B. Poulton*).

Odontothripiella fasciatipennis (Bagnall)

Odontothrips fasciatipennis Bagnall, 1916a : 217.

Although similar to *australis* and *bispinosa* in the ocellar chaetotaxy and the sculpture of the metanotum, *fasciatipennis* is quite distinct in having the second quarter of the fore wing dark and the rest of the wing pale.

LECTOTYPE ♀. South Australia : Adelaide. Outer Harbour, *Mesembryanthemum* flower, 28.viii.1914 (*E. B. Poulton*).

ODONTOTHRIPOIDES Bagnall

Odontothripoides Bagnall, 1929a : 48. Type-species *O. morisoni*, by monotypy.

The single species at present in this genus differs from *Odontothrips* and *Odontothripiella* species in having no elongate setae on the posterior angles of the pronotum. There is a long interval without setae on the first vein of the fore wing.

Odontothripoides morisoni Bagnall

Odontothripoides morisoni Bagnall, 1929a : 49.

Syntypes ♀♀ & ♂♂. [South Australia : Clare, on *Goodenia*, 14.x.1926].

Odontothrips biuncus John

Odontothrips biuncus John, 1921 : 7–8.
Odontothrips uzeli of Bagnall, 1924j : 272, *nec* Bagnall, 1919 : 262.

Bagnall described *uzeli* originally from material in Uzel's Collection. This has now been re-examined and represents *loti* Haliday. The material referred to by Bagnall in 1924 from Gibside, County Durham represents *biuncus*.

Odontothrips loti (Haliday)

Thrips loti Haliday, 1852 : 1108.
Odontothrips uzeli Bagnall, 1919 : 262. **Syn. n.**
Odontothrips anthyllidis Bagnall, 1928c : 96–97.
Odontothrips thoracicus Bagnall, 1934a : 59–60.
Odontothrips quadrimanus Bagnall, 1934a : 60.
Odontothrips brevis Bagnall, 1934e : 488–489. [*Lapsus calami* for *brevipes*].
Odontothrips brevipes Bagnall, 1934e : 488–489. **Syn. n.**
Odontothrips loti (Haliday) ; Priesner, 1964 : 66.

The name *brevis* appears at the beginning of a description in 1934, but the name given twice in the text is *brevipes*. The claw is missing from one fore tibia of the holotype female but the ninth tergite of the male is typical of *loti*.

Syntypes ♀ of *anthyllidis*. Scotland : Aberdeen, *Anthyllis*, viii.1925 (*R.S.B.*).

Holotype ♀ of *brevipes*. Switzerland : Lugano, viii.1929 (*J. J. Mann*).

LECTOTYPE ♀ of *quadrimanus*. England : Kent, Tankerton, *Ononis spinosa*, vi.1931 (*R.S.B.*).

Holotype ♀ of *thoracicus*. England : W. Grimstead, near Salisbury, *Ononis*, vii.1929.

Lectotype ♀ of *uzeli*. Bohemia : ex Collection Uzel.

Odontothrips meridionalis Priesner

Odontothrips ulicis var. *meridionalis* Priesner, 1919a : 122.
Odontothrips ignobilis Bagnall, 1919 : 262–263. **Syn. n.**
Odontothrips mutabilis Bagnall, 1924j : 271–272. **Syn. n.**
Odontothrips inermis Bagnall, 1928c : 95–96. **Syn. n.**
Odontothrips meridionalis Priesner ; Priesner, 1964 : 67.

Bagnall's species *ignobilis* and *mutabilis* have both been regarded as synonyms of *meridionalis* by various authors, although Priesner (1964) re-established both names. The base of the wing in *ignobilis* is pale, although the costa is dark, but this is not uncommon in *meridionalis.* The colour of antennal IV does not differ in the syntypes of *mutabilis* from typical *meridionalis.* In a footnote to the description of *inermis,* Bagnall indicated the possibility that this species represented the male of *mutabilis.* The chaetotaxy of the ninth abdominal tergite in the holotype is typical of *meridionalis* and the fore tarsus bears a small tooth.

Holotype ♀ of *ignobilis.* SPAIN : Ortigosa (Lagrosa) (*Navás*).

Syntypes ♀ of *mutabilis.* ENGLAND : Hampshire, Bournemouth, *Ulex europeus,* ix.1924 (*R.S.B.*).

Holotype ♂ of *inermis.* ENGLAND : Cheshire, Delamere, *Ulex,* 26.viii.1925 (*H. Britten*).

Odontothrips morgani Bagnall

Euthrips phalerata of Morgan, 1913 : 1–3 nec Haliday, 1836 : 447.
Odontothrips morgani Bagnall, 1929a : 49.

The name *morgani* was proposed for the species referred to by Morgan as *phalarata* Haliday, and described by him from two females from *Plantago virginica,* Quincy, Florida. The species differs from *phalaratus* Haliday in having a complete row of setae on the first vein, but as far as the present author is aware, Bagnall never examined any *Odontothrips* specimens from Florida.

Odontothrips ononidis Bagnall

Odontothrips ononidis Bagnall, 1934e : 490–491.

This species is known only from females. These, although described as being related to *confusus* Priesner, cannot be distinguished at present from *karnyi* Priesner, 1924a, or large specimens of *meridionalis* Priesner, 1919.

Syntypes ♀. FRANCE : St. Georges-de-Didonne, *Ononis natrix,* 15.vii.1914.

Odontothrips phaleratus (Haliday)

Thrips phalterata Haliday, 1836 : 447.
Odontothrips anisomeris Bagnall, 1924j : 271.
Odontothrips phaleratus (Haliday) ; Bagnall, 1928c : 97.

Syntypes ♀ of *anisomeris.* ENGLAND : Surrey, Box Hill, *Vicia* sp., v.1924 ; Durham, Gibside, *Lathyrus pratensis,* vii.1924 (*R.S.B.*).

Odontothrips vuilleti Bagnall

Odontothrips vuilleti Bagnall, 1934e : 489–490.

The unique holotype female is not in the Paris Museum, nor in the British Museum (Natural History). The published data were, FRANCE : Pyrénées, Cauterets, *Astragalus monspessulanus*, 25.v.1913 (*M. Vuillet*).

Oxythrips ajugae Uzel

Oxythrips ajungae Uzel, 1895 : 137.
Oxythrips pernicis Bagnall, 1926f : 283. **Syn. n.**

Bagnall described *pernicis* on a single male, and distinguished this from *ajugae* by the shorter and broader antennal segments. This specimen is here regarded as a small example of *ajugae*.

Holotype ♂ of *pernicis*. ENGLAND : Surrey, Leith Hill, *Salix*, 2.v.1926 (*R.S.B.*).

Oxythrips halidayi Bagnall

Oxythrips halidayi Bagnall, 1924j : 272–273.

Bagnall did not indicate any type series when describing this species, but stated that the species was found on *Fraxinus* in Britain from Deeside in the North to Devon in the South. Only three micropterous females remain in the collection, two from Durham, Gibside, vii.1924, and one from Kirtlington Park, Oxford, 21.ix.1913. The interocellar setae are longer than the sides of the ocellar triangle as in *quercicola*, but the latter species is pale, whereas *halidayi* is dark brown.

Oxythrips nobilis Bagnall

Oxythrips nobilis Bagnall, 1927a : 569–570.

Priesner (1964 : 57) states that the pores on the eighth tergite in *nobilis* do not lie close to the hind margin of the tergite. However, in the seven females available from the type series, these pores lie very close to the hind margin. The species is close to *brevistylis* Trybom, from which it differs in having a partial suture on the ventral surface of antennal VI.

LECTOTYPE ♀. FRANCE : Eze, *Pinus halepensis*, iii.1927 (*R.S.B.*).

Oxythrips quercicola Bagnall

Oxythrips quercicola Bagnall, 1926f : 282.

Bagnall described this species on three macropterous females but only a single specimen remains in the collection. It is a pale species with the interocellar setae larger than the sides of the ocellar triangle. The median pair of metathoracic setae apparently stand closer together than their length.

LECTOTYPE ♀. SCOTLAND : Cocksburnpath, *Quercus* flower, vi.1924 (*R.S.B.*).

Oxythrips tristis Bagnall

Oxythrips tristis Bagnall, 1927b : 570–571.

This species is known from a single macropterous female. The interocellar setae are a little shorter than the sides of the ocellar triangle, much as in *ulmifoliorum* Haliday. These two species can be separated by the sculpture of the abdominal tergites. In *tristis* there are eight transverse lines, rather close together and barely anastomosing at all. In *ulmifoliorum* there are seven transverse lines which are wider apart and frequently anastomose medially.

Holotype ♀. FRANCE : Plage d'Hyères, *Eryngium maritimum* flowers, ix.1927 (*R.S.B.*).

Oxythrips ulmifoliorum (Haliday)

Thrips ulmifoliorum Haliday, 1836 : 447.
Scirtothrips ulmi Bagnall, 1913k : 232–233.

Bagnall described *ulmi* on material collected on ' the common Elm ' in the midland counties of England—Oxfordshire, Warwickshire, and Berkshire. None of this material remains in the collection. The species is usually light brown with short interocellar setae (see under *tristis*).

PANCHAETOTHRIPS Bagnall

Panchaetothrips Bagnall, 1912b : 258. Type-species *Panchaetothrips indicus*, by monotypy.

Panchaetothrips indicus Bagnall

Panchaetothrips indicus Bagnall, 1912b : 258–260.
Panchaetothrips indicus Bagnall ; Hood, 1954 : 30.

Hood gives a key for separating *indicus* from *noxius* Priesner. Moulton recorded *indicus* from Uganda on Coffee (1936 : 498) but one of the males upon which this record was based has been examined and is clearly *noxius*. Bagnall's species is recorded only from India. The maxillary palpi in the type specimens are two-segmented, not three as originally figured.

Syntypes ♀. INDIA : Madras, *Curcuma longa* leaves, 1889.

Physothrips latus Bagnall **comb. rev.**

Physothrips latus Bagnall, 1912e : 191–192.
Physothrips propinquus Bagnall, 1921a : 62.
Physothrips propinquus Bagnall ; Bagnall, 1929f : 181.
Taeniothrips latus (Bagnall) ; Mound, 1966b : 57–58.

The type specimen of *latus* is rather small, and moreover has contracted strongly during the mounting procedure. No morphological differences apart from size can be seen between the two nominal species. *Ph. latus* closely resembles *salicis* Reuter, the type-species of *Physothrips*, in the chaetotaxy of the ocellar region, the prothorax hind margin, the wings, and the metanotum. A metathoracic furcal spinula is indicated in some members of a series collected from *Betula* sp. leaves in Scotland by the present author. *Taeniothrips decoratus* Pelikan (1965 : 99–102), from the description, is closely related.

Holotype ♀. ENGLAND : Northumberland, Ninebanks, near Whitfield, *Scabiosa*, Summer 1911 (*H. S. Wallace*).

Holotype ♀ of *propinquus*. ENGLAND : Oxford, *Pinus*, vii.1914 (*R.S.B.*).

Physothrips setiventris Bagnall

Physothrips setiventris Bagnall, 1918b : 61–63.

This species resembles *salicis* Reuter, the type-species of *Physothrips*, in the chaetotaxy of the ocellar region, the prothorax hind margin, the wings, and the metanotum. The eighth tergal comb is long and fine and a spinula is present on the metathoracic furca. However, the sternites bear twelve to twenty accessory setae and the tergites are covered laterally with numerous microtrichia. *Ph. setiventris* appears to be intermediate between *Physothrips* and *Mycterothrips*.

Holotype ♀. INDIA : Darjeeling, Ringtong, on tea bush, 14.vi.1916 (*E. H. Andrews*).

Platythrips tunicatus (Haliday)

Thrips tunicata Haliday, 1852 : 1115.
Bolacothrips nigricornis Bagnall, 1913k : 239.
Platythrips tunicatus (Haliday) ; Bagnall, 1928d : 130.

Bagnall's species *nigricornis* was based on a single male. This specimen was subsequently recognized as the male of *tunicatus* Haliday but the preparation has now turned black.

Holotype ♂ of *nigricornis*. ENGLAND : Oxfordshire, Weston-on-the-Green, on sedge, viii.1913 (*R.S.B.*).

Prosopothrips nigriceps Bagnall

Prosopothrips nigriceps Bagnall, 1927b : 570.

This species differs from the type of the genus, *rejdovskyi* Uzel, in the yellow prothorax and the shorter antennal segments. In the sixteen females available, antennal III is less than twice as long as broad, whereas in the single female *rejdovskyi* examined, antennal III is more than twice as long as broad.

Syntypes ♀. FRANCE : Hyères-la-Plage, on a small beach grass, ix.1927 (*R.S.B.*).

Pseudanaphothrips achaetus (Bagnall)

(Text-figs. 15 & 16)

Pseudothrips achaetus Bagnall, 1916b : 398–399.
Pseudanaphothrips achaetus (Bagnall) Karny, 1921 : 242.

Karny (1921 : 216) suggested that this species should be the type of a new monotypic genus. *Pseudothrips inaequalis* (Beach) has a pair of long median setae on tergites three to six, two pairs of long postocular setae, and pair III of the ocellar setae arise on the anterior margins of the ocellar triangle. *P. achaetus* does not have long median tergal setae, has five pairs of short postocular setae, and pair III of the ocellar setae arise on the posterior margin of the ocellar triangle. Contrary to the original description, a comb is frequently represented on tergite eight by a few teeth either medially or laterally.

Syntypes ♀. South Australia : Mt. Lofty Range, Adelaide, ? flowers of *Acacia myrtifolia* or *Epachris impressa*, 9.viii.1914 (*E. B. Poulton*).

Pseudanaphothrips parvus (Bagnall) **comb. n.**

Pseudothrips parvus Bagnall, 1916a : 222–223.

The chaetotaxy of the head, and the sculpture and chaetotaxy of the metanotum of *parvus* are very similar to *achaetus*, the type-species of *Pseudanaphothrips*. In *achaetus* the pronotal posteromarginal setae are of equal length, in *parvus* the longest postero-angular seta is about twice as long as the minor setae.

LECTOTYPE ♀. Australia : Queensland, Brandon, flower of ? *Helianthus* sp., 16.x.1914 (*R. Kelly*).

Pseudanaphothrips uniformis (Bagnall) **comb. n.**

Physothrips uniformis Bagnall, 1926c : 102–103.
Isochaetothrips uniformis (Bagnall) ; Moulton, 1928a : 227.

This species resembles *achaetus* in the structure of the metanotum and the chaetotaxy of the head. In the two females of the type series which have been studied, the major pronotal postero-angular setae are three times as long as the minor setae. The microtrichia of the eighth tergal comb are as long as the median setae on tergite eight.

LECTOTYPE ♀. Australia : Victoria, Healesville, Ben Cairn, *Senecio dryadeus*, 17.i.1926 (*R. Kelly*).

Rhipiphorothrips bicolor (Bagnall)

Retithrips bicolor Bagnall, 1913f : 290–291.
Rhipiphorothrips bicolor (Bagnall) Bagnall, 1915a : 320.

R. cruentatus Hood, 1919 differs from *bicolor* and *pulchellus* Morgan in having a brown abdomen in the female, and a small lateral tooth on each side of tergite four of the yellow abdomen of the male. It has further been claimed that the setae on tergite ten are not fan-shaped. However, in a long series of males from India and Pakistan in the British Museum (Natural History) these setae frequently appear to be acute due to the fan being orientated vertically. The expanded nature of the setae can then only be determined by the use of an oil immersion lens. Furthermore, the dark colour of the females is not constant. It seems possible that these three species are synonymous.

Syntypes ♀. CEYLON : on vines (*E. E. Green*).

SCIRTOTHRIPS Shull

Scirtothrips Shull, 1909 : 222. Type-species *S. ruthveni* Shull, by monotypy.
Sericothripoides Bagnall, 1929d : 69. Type-species *Dendrothrips bispinosus*, by monotypy.
Scirtothrips Shull ; Bailey, 1964 : 329–362.

Bagnall compared his new genus to *Sericothrips* Haliday, but apart from the reduction in number of setae on the second vein of the fore wing the type-species, *bispinosus*, cannot be readily distinguished from other *Scirtothrips* species. Bailey gives *Sericothripoides* as a synonym of *Dendrothrips*, but the fore wing of the latter is highly distinctive with the anterior fringe cilia arising submarginally and not extending around the rounded wing apex.

Scirtothrips bispinosus (Bagnall)

Dendrothrips bispinosus Bagnall, 1924d : 455.
Sericothripoides bispinosus (Bagnall) Bagnall, 1929d : 69.
Scirtothrips bispinosus (Bagnall) Mound, 1968a : [in press]

As in other species of *Scirtothrips*, there are three pairs of ocellar setae ; pair I anterior to the first ocellus, pair II lateral to the first ocellus near the compound eyes, pair III between the posterior ocelll. The fore wing in no way resembles *Dendrothrips* species, but differs from most *Scirtothrips* species in the reduction in number of setae on the hind vein. In the lectotype there are eight setae on the fore vein, but in two of the paratypes there are seven setae on the fore vein and one on the hind vein. Similar variation occurs in material of this species from Travancore, India, at the British Museum (Natural History). The metanotum is reticulate and the sternites are devoid of microtrichia medially. Bagnall's indication that this species was based on a male was apparently due to a misprint.

LECTOTYPE ♀. INDIA : Nilgiri Hills, Kotagiri, Tea, 6.vii.1922 (*Ramakrishna*).

Scirtothrips dorsalis Hood

Scirtothrips dorsalis Hood, 1919b : 90–91 (April).
Heliothrips minutissimus Bagnall, 1919 : 260 (October).
Scirtothrips dorsalis Hood ; Mound, 1968a :

In this species the microtrichia extend across the posterior half of the median part of the sternites. Ocellar setae III are on the posterior margin of the ocellar triangle, and the median metanotal setae are a little posterior to the lateral setae. The sculpture of the anterior half of the metanotum consists of parallel lines concentric about the mid-point of the anterior border of the sclerite, and the posterior and lateral areas bear elongate reticulations. The male does not have abdominal drepanae.

LECTOTYPE ♀ of *minutissimus*. INDIA : Bombay, Surat, on violet, ii.1906 (*Lefroy*).

Scirtothrips longipennis (Bagnall)

Euthrips longipennis Bagnall, 1909d : 173–174.
Scirtothrips longipennis (Bagnall) ; Bailey, 1964 : 342–343.

This is a large species of *Scirtothrips* with very stout tergal microtrichia. The sternites are devoid of microtrichia medially, the metanotum is reticulate and the median pair of metanotal setae are only a very little posterior to the lateral pair. Pair III of the ocellar setae are on the anterior margins of the ocellar triangle. The species was described from specimens taken on the flowers and leaves of *Chamaedorea* under glass at the Brussels Botanic Gardens, Belgium. None of this series remains in the Bagnall collection and the two females labelled by Bagnall ' Type ' were collected in England, Newcastle-on-Tyne, on *Adiantum*, xii.1908.

Selenothrips rubrocinctus (Giard)

Physopus rubrocinctus Giard, 1901 : 263–265.
Brachyurothrips indicus Bagnall, 1926c : 98–99.

The red-banded Cacao thrips is recognized as a pest on several tree-crops throughout the tropics.

LECTOTYPE ♀ of *indicus*. INDIA : Calcutta, salt marsh, 8.iii.1914 (*T. Bainbrigge-Fletcher*).

SYNAPTOTHRIPS Trybom

Synaptothrips Trybom, 1910 : 155–156. Type-species *S. crassicornis*, by monotypy.
Homothrips Bagnall, 1915b : 588–589. Type-species *H. distinctus*, by monotypy.
Limphysothrips Bagnall, 1919 : 272. Type-species *L. paradoxus*, by monotypy.
Synaptothrips Trybom ; Mound, 1968b [in press].

This South African genus has recently been revised and a key published for the identification of the eleven species. *Limphysothrips* was distinguished from *Homothrips* by the presence of a pair of stout spines on the tenth abdominal segment, but the size of these spines is known to vary in at least one member of the genus.

Synaptothrips distinctus (Bagnall)

Homothrips distinctus Bagnall, 1915b : 589.
Synaptothrips distinctus (Bagnall) Mound, 1968b [in press].

Lectotype ♀. SOUTH AFRICA : Cape Town, flower of Sugar Bush (Proteaceae), 13.vii.1914 (*E. B. Poulton* no. 7).

Synaptothrips paradoxus (Bagnall)

Limphysothrips paradoxus Bagnall, 1919 : 272–273.
Synaptothrips paradoxus (Bagnall) Mound, 1968b [in press].

Holotype ♀. East Africa : Bismarkhugel [? Tanganyika : Bismarkburg] 3.iv.1912 (*Alluaud & Jeannel* 70).

TAENIOTHRIPS Amyot & Serville

Taeniothrips Amyot & Serville, 1843 : 644. Type-species *Thrips primulae* Haliday, 1836, designated by Karny, 1907 : 45.
Amblythrips Bagnall, 1911b : 3. Type-species *A. ericae*, by monotypy.
Megalurothrips Bagnall, 1915b : 589. Type-species *M. typicus*, by monotypy.
Ceratothripoides Bagnall, 1918a : 201. Type-species *C. brunneus*, by monotypy.

The specimens on which *Amblythrips ericae* Bagnall was based, were males, not females as was stated originally. The genus has been used for two species of *Taeniothrips* in which the males are reduced and apterous. *Megalurothrips* was based on a single female of a species now recognized to be related to *Taeniothrips nigricornis* (Schmutz). It is possible that this genus could be usefully revived to include certain *Odontothrips*-like species of *Taeniothrips*. *Ceratothripoides*, like *Ceratothrips* Karny, was erected for a specimen with aberrant antennae.

The genus *Taeniothrips* is clearly polyphyletic and many of its species are closely related to forms at present included in the genus *Thrips*. Table I draws attention to this relationship between the two genera, although only Bagnall's species or their senior synonyms are included. It is possible that the generic limits could be more realistically drawn following the vertical columns rather than the horizontal. The present division between *Thrips* and *Taeniothrips*, which is based purely on the seven- or eight-segmented condition of the antennae, is not sound morphology as it is the extremities of an insect's body which are most likely to be affected by abnormal growth conditions.

Taeniothrips andrewsi (Bagnall)

Physothrips andrewsi Bagnall, 1921d : 394–395.

This species is very close to *Thrips albipes* from which it can only be distinguished by the larger size and longer antennae, and the uniform brown colour. *T. andrewsi* has been taken on tea in Assam. Only one specimen, marked cotype, remains in Bagnall's collection, and this specimen is here designated lectotype.

LECTOTYPE ♀. India : Darjeeling District, Rington Tea Estate, on rose, 14.vi.1916 (*E. A. Andrews*).

Taeniothrips antennatus (Bagnall)

Physothrips antennatus Bagnall, 1914b : 23–24.

Superficially similar to *xanthoceros* Hood, which has the same habit of feeding on fungus spores on Coffee, *antennatus* may be distinguished by the presence of ocellar

TABLE I

Bagnall's species of *Thrips* and *Taeniothrips* or their senior synonyms

	GROUP A			GROUP B			GROUP C		
	Ocellar setae I present Sternal accessory setae absent			Ocellar setae I absent Sternal accessory setae present			Ocellar setae I absent Sternal accessory setae absent		
				Metanotal setae at anterior	Metanotal setae not at anterior border		Metanotal setae at anterior	Metanotal setae not at anterior border	
	A1 Comb present	A2 Comb interrupted	A3 Comb absent		Tergite II with 3 lateral setae	Tergite II with 4 lateral setae		TergiteII with 3 lateral setae	Tergite II with 4 lateral setae
TAENIOTHRIPS	*funtumiae* *lefroyi* *ventralis*	*frici* *kellyanus* *nigricornis* *peculiaris* *sjostedti* *typicus*	*antennatus* *ericae* *discolor* *pallens*	*andrewsi*	*atratus*†* *debilis* *gentianae** *italicus*†* *longiceps* *sodalis**	*vuilleti*	*inconsequens*† *major*† *spiranthidis*†	*immsi**	*flavidulus*
THRIPS				*albipes*	*griseus* *imaginis**‡ *origani* *poultoni*	*coloratus*		*crassicornis* *euphorbiicola*† *herricki** *major*‡ *tabaci*†	*flavidus* *funebris* *fulvipes** *menyanthidis*‡ *pallidulus* *pusillus* *robustus*

* Pleurotergal accessory setae present
† Four or more distal wing setae
‡ Comb interrupted medially

setae I, the lines of sculpture on the prothorax and metanotum, and the numerous pronotal discal setae. The present author has examined a specimen from Coffee at Bukoba, Tanzania, 18.vii.1931, determined originally as *xanthocerus*. The holotype is on a blackened slide, but two syntypes are in good condition.

Syntypes ♀. UGANDA : feeding on spores of Coffee Rust Fungus (*Gowdey*).

Taeniothrips atratus (Haliday)

Thrips atrata Haliday, 1836 : 447.
Ceratothrips britteni Bagnall, 1914d : 2–4.

Ceratothrips britteni was based on a single female with deformed antennae.

Holotype ♀ of *britteni*. ENGLAND : Cumberland, Great Salkeld, *Scabiosa succisa*, 16.ix.1913 (*H. Britten*).

Taeniothrips brunneus (Bagnall)

Ceratothripoides brunneus Bagnall, 1918a : 201–203 (2.iii.1918).
Physothrips ventralis Hood, 1918a : 116 (10.iv.1918). **Syn. n.**
Physothrips marshalli Bagnall, 1918c : 66–68 (v.1918). **Syn. n.**

Paratype specimens of *ventralis* from both Cameroons and Nigeria have been compared with the types of *brunneus* and *marshalli*. This species is common in West Africa and Uganda, but has not been recorded from South Africa. The three nominal species were described almost simultaneously, but Bagnall's *brunneus*, based on a single female with aberrant antennae, has priority.

Holotype ♀. GHANA, Aburi, on Cola shoots and buds, 5.xi.1915 (*W. H. Patterson*).

Holotype ♀ of *marshalli*. GHANA : Aburi, *Hibiscus sinensis* flowers, 30.x.1915 (*W. H. Patterson*).

Taeniothrips discolor (Karny)

Euthrips discolor Karny, 1907 : 46.
Physothrips navasi Bagnall, 1921a : 64.
Oxythrips forticornis Bagnall, 1933c : 650–651. **Syn. n.**

This species is very close to *frici* Uzel, from which it can be distinguished by the presence of a pair of pores on the metanotum, the shorter pronotal postero-angular setae of which the outer is much smaller than the inner, and the absence of a comb on the eighth tergite. *Ph. navasi* is given as a synonym of *discolor* by Priesner (1964 : 78) but Bagnall's type series is on blackened slides. The unique holotype of *forticornis* has the outer pronotal postero-angular seta broken off on one side which probably accounts for its description as an *Oxythrips*.

Original data of *navasi*. SPAIN : Arnes (Tarragona), viii.1912 (*Navás*).

Holotype ♀ of *forticornis*. FRANCE : Arcachon, Mouth of Teste, *Juncus*, viii.1926 (*R.S.B.*).

Taeniothrips ericae (Haliday)

Thrips erica Haliday, 1836 : 448.
Amblythrips ericae Bagnall, 1911b : 4.
Oxythrips brevicollis Bagnall, 1911b : 6.

Bagnall's *ericae* was described from five males, and *brevicollis* from a single female.

Syntypes ♂ of *ericae* Bagnall. England : Yorkshire, Ravenscar, *Calluna*, ix.1910 (*R.S.B.*),

Holotype ♀ of *brevicollis*. England : Yorkshire, Ravenscar, *Sphagnum*, ix.1910 (*R.S.B.*).

Taeniothrips flavidulus (Bagnall)

Physothrips flavidulus Bagnall, 1923c : 628.

This species is close to *Thrips flavidus* in having ocellar setae III just within the ocellar triangle. In *flavidulus*, however, the pronotal discal setae are darker and, as Bagnall indicated, the antennae longer. The males described by Bagnall belong in the *albipes* group.

LECTOTYPE ♀. India : Dehra Dun, *Eriobotrya japonica* flowers, 1.i.1912 (*A. D. Imms*).

Taeniothrips frici (Uzel)

Physopus frici Uzel, 1895 : 126–127.
Physothrips brevicornis Bagnall, 1916a : 220.

T. frici lives in the yellow flowers of various Compositae and has been collected in both Victoria and New South Wales on *Hypochoeris*, *Helianthus* and *Taraxacum*. The present author has also seen specimens from North West Pakistan. Ocellar setae III lie on the anterior margins of the ocellar triangle and the eighth tergal comb is absent in the males.

Syntypes ♀ of *brevicornis*. Australia : Victoria, Ballarat, *Hypochoeris radicata*, 28.i.1915 (*R. Kelly*).

Taeniothrips funtumiae (Bagnall)

Physothrips funtumiae Bagnall, 1913f : 292–293.
Physothrips funtumiae Bagnall ; Bagnall, 1918c : 68–69.

This species is similar to *Physothrips* species in having a spinula on the metathoracic furca, but the posterior margin of the pronotum bears four pairs of setae instead of only two.

LECTOTYPE ♀. Uganda : Entebbe, *Funtumia elastica* (*C. C. Gowdey*).

Taeniothrips gentianae (Bagnall)

Physothrips gentianae Bagnall, 1933c : 653–655.

Priesner (1964 : 73) gives this species as a form of *trybomi* Karny. I am not familiar with the latter species and cannot at present distinguish *gentianae* from *vulgatissimus* Haliday.

Syntypes ♀. ITALY : Dolomites, Lago di Misurina, 6,000 ft., *Gentiana asclepiadea*, ix.1929 (*R.S.B.*).

Taeniothrips gowdeyi (Bagnall)

Ceratothrips gowdeyi Bagnall, 1919 : 254–255.
Taeniothrips debilis Hood, 1925 : 136–137. **Syn. n.**
Physothrips neavei Karny, 1925a : 129. **Syn. n.**
Physothrips gowdeyi Bagnall, 1926c : 105–106.

Bagnall described both of the forms he called *gowdeyi* from the same series of specimens. The species was first described from a single female with aberrant antennae. One of Hood's five original specimens from Nigeria has been examined by the present author as well as the unique holotype of *neavei*.

Holotype ♀. UGANDA : Kampala, flower of Tree Tomato (*Solanum*), 11.xi.1917 (*C. C. Gowdey*).

Holotype ♀ of *neavei*. UGANDA : Kampala, flower of *Ipomea hildebrantei*, 26.xii.1920 (*H. Hargreaves*).

Taeniothrips hispanicus (Bagnall)

Physothrips hispanicus Bagnall, 1921a : 63–64.
Taeniothrips hispanicus Bagnall ; Priesner, 1964 : 78.

This species is represented in Bagnall's collection by a single blackened slide of a male. No details are visible and most of the specimen has decomposed. The data are as follows: SPAIN : Arnes (Tarragona), 28.viii.1913 (*Navás*). Morison (1949 : 116) indicates that this is a synonym of *frici* Uzel.

Taeniothrips immsi (Bagnall)

Physothrips immsi Bagnall, 1926c : 106–107.
Thrips immsi Bagnall, 1926c : 110.

The two nominal species called *immsi* were distinguished by the possession of seven- or eight-segmented antennae. Ocellar setae III are on the anterior margins of the ocellar triangle and the abdominal pleurotergites bear accessory setae, although these are absent from the sternites.

LECTOTYPE ♀. [INDIA : Bhowali Kumaon, 5,700 ft., *Clematis*, x.1909 (*A. D. Imms*)], Reg. 210.

LECTOTYPE ♀ of '*Thrips immsi*'. [INDIA : Dehra Dun, *Eriobotrya japonica*, 1.i.1912 (*A. D. Imms*)], Reg. 200.

Taeniothrips inconsequens (Uzel)

Physopus inconsequens Uzel, 1895 : 117–119.
Physothrips calcaratus Bagnall, 1916a : 221–222.

LECTOTYPE ♀ of *calcaratus*. BOHEMIA : ex Collection Uzel.

Taeniothrips italicus Bagnall

Taeniothrips italicus Bagnall, 1926e : 650–651.

Priesner (1964 : 74) gives this species as a synonym of *annulatus* Karny and states that antennal IV is largely yellow. In the lectotype, however, both antennal IV and V are brown with only the basal constriction paler. The species differs from typical *atratus* in having antennal III yellow, and the number of setae on the distal half of the first vein variable from three to six.

LECTOTYPE ♀. ITALY : Portici (Napoli), in Caprifoglio, 31.v.1917 (*C. Minozzi*).

Taeniothrips kellyanus (Bagnall)

Physothrips kellyanus Bagnall, 1916a : 219–220.

This species is related to *nigricornis* Schmutz and *typicus* Bagnall but differs from them in having the base of the large sensorium on antennal VI almost round, not elongate oval. Antennals III and IV are dark brown with the apical neck sharply yellow.

LECTOTYPE ♀. AUSTRALIA : Queensland, Brandon, on Composite flower ? *Helianthus* sp., 16.x.1914 (*R. Kelly*).

Taeniothrips lefroyi (Bagnall)

Physothrips lefroyi Bagnall, 1913f : 292.
Taeniothrips (*Lefroyothrips*) *lefroyi* (Bagnall) Priesner, 1938 : 499.

This species differs from most other *Taeniothrips* species in the long postocular region of the head with strong transverse lines dorsally. The male bears three pairs of stout thorns on the ninth tergite.

Syntypes ♀♀ ♂. INDIA : Darjeeling, Lebong, tea-flowers, 6.ii.1909 (*Maxwell Lefroy*).

Taeniothrips longiceps (Bagnall)

Physothrips longiceps Bagnall, 1916a : 220–221.
Taeniothrips longiceps (Bagnall) ; Priesner, 1938 : 522.

LECTOTYPE ♀. INDIA : Kulhara, Garhwal, 11,700 ft., *Rhododendron* flowers, 5.vi.1910 (*A. D. Imms*).

Taeniothrips major Bagnall

Taeniothrips major Bagnall, 1916a : 216.

This species is very close to *picipes* Zett., the type-species of the genus *Taeniothrips*. The four specimens available of Bagnall's species can be separated from *picipes* by the dark colour of antennal III, and the origin of ocellar setae III on a line joining the posterior ocelli rather than just anterior to that line.

LECTOTYPE ♀. INDIA : Kulhara, Garhwal, 11,700 ft., *Rhododendron* flowers, 5.vi.1910 (*A. D. Imms*).

Taeniothrips nigricornis (Schmutz)[3]

(Text-fig. 14)

Frankliniella nigricornis Schmutz, 1913 : 1020–1021.
Physothrips usitatus Bagnall, 1913f : 293–294.
Physothrips usitatus var. *cinctipennis* Bagnall, 1916a : 217–218.
Physothrips brunneicornis Bagnall, 1916a : 218. **Syn. n.**
Taeniothrips nigricornis (Schmutz) ; Priesner, 1938 : 470–471.

Priesner gives *brunneicornis* as a synonym of *distalis* Karny, a species not known to the present author. *T. nigricornis* is a highly variable species and in a long series the author has studied from New Guinea the largest specimen is almost twice as long as the smallest. The females are very similar to *sjostedti* Trybom, although the males are readily distinguished by the lack of the pair of marginal spines on tergite IX, which are found in the African species.

Syntypes ♀ of *usitatus*. INDIA : Allahabad, *Butea frondosa* flowers (*A. D. Imms*).

Syntypes ♀ of *cinctipennis*. AUSTRALIA : Queensland, Brandon, on small flowers (pea), 16.x.1914 (*R. Kelly*).

Holotype ♀ of *brunneicornis*. JAPAN : Kobe, iv.1914 (*J. E. A. Lewis*).

Taeniothrips pallens (Priesner) **comb. n.**

Oxythrips ericae var. *pallens* Priesner, 1919b : 89.
Anblythrips ericicola Bagnall, 1927b : 573–574.
Amblythrips pallens (Priesner) ; Priesner, 1964 : 83.

Holotype ♀ of *ericicola*. FRANCE : Iles d'Hyères, Porquerolles, *Erica arborea*, ix.1927 (*R.S.B.*).

Taeniothrips peculiaris (Bagnall)

Physothrips peculiaris Bagnall, 1918a : 206–207.
Taeniothrips (*Pongamiothrips*) *peculiaris* (Bagnall) Ananthakrishnan, 1962 : 90–91.

Bagnall described this species on a series of males but Ananthakrishnan has recently figured the female and male antennae. The sternites of the male bear medially seventy to eighty dagger-shaped setae. The female is variable in pigmentation, very similar to *nigricornis* but with the median setae on abdominal tergites II and III longer, about 0·25 as long as the pronotal postero-angulars.

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[3] Ananthakrishnan & Jagadish (1967, *Opusc. ent.* **32** : 159-160) indicate that *distalis* Karny, 1913, is the oldest name for this species.

Syntypes ♂. INDIA : Bengal, Pusa, on Lucerne, 24.ii.1906 (*Maxwell Lefroy*).

Taeniothrips sjostedti (Trybom)

Physopus sjostedti Trybom, 1908 : 4–6.
Physothrips variabilis Bagnall, 1913f : 294. **Syn. n.**
Taeniothrips sjostedti (Trybom) ; Faure, 1960a : 34–44.
Taeniothrips meridiana Moulton, 1936 : 503–504. **Syn. n.**

The broad form of the head referred to by Bagnall in describing *variabilis* is due to crushing by the cover-slip in mounting. The present author has examined numerous specimens of this species, particularly from a suction-trap in Malawi, and the first vein of the fore wing occasionally bears a complete row of setae. The pale band on the fore wing is variable, but the shape of the teeth of the pleurosternites figured by Faure is a valuable distinction between this species and *nigricornis*. Both the holotype and allotype of *meridiana* are in the British Museum (Natural History).

LECTOTYPE ♀ of *variabilis*. COMORO ISLANDS : Mayotte, ' Coll : Marie, R. Oberthür '.

Holotype ♀ of *meridiana*. UGANDA : Kampala, 11.i.1924 (*H. Hargreaves*).

Taeniothrips sodalis Bagnall

Taeniothrips sodalis Bagnall, 1926e : 651.
Taeniothrips sodalis Bagnall ; Priesner, 1964 : 74.

This species is represented in the Bagnall collection by a single male and female, both of which are damaged. The relationship of these to the *atratus-vulgatissimus* group is not clear.

LECTOTYPE ♀. ITALY : Portici (Napoli), in Caprifoglio, 31.v.1917 (*C. Minozzi*).

Taeniothrips spiranthidis (Bagnall)

Physothrips spiranthidis Bagnall, 1926c : 104–105.

Although apparently related to *picipes* and *inconsequens*, *spiranthidis* can be distinguished from these two species by the origin of ocellar setae III just anterior to the lateral sides of the ocellar triangle.

LECTOTYPE ♀. AUSTRALIA : Victoria, Healesville, *Spiranthes australis*, 28.i.1923 (*R. Kelly*).

Taeniothrips typicus (Bagnall)

(Text-fig. 13)

Megalurothrips typicus Bagnall, 1915b : 590–591.
Megalurothrips setipennis Karny, 1925b : 11. **Syn. n.**
Taeniothrips varicornis Moulton, 1928b : 292. **Syn. n.**

Priesner (1938 : 510) gives *varicornis* as a synonym of *setipennis*. The present author has compared a paratype of *varicornis* with the unique holotype of *typicus*. The species is related to *nigricornis* but antennal III is yellow, IV yellow in basal half, and V yellow at extreme base.

Holotype ♀. SARAWAK : Mt. Matang, 1,000 ft., in white flower, 8.xii.1913 (*G. E. Bryant*).

Taeniothrips vuilleti (Bagnall)

Physothrips vuilleti Bagnall, 1933c : 655–656.
Taeniothrips vuilleti Bagnall ; Titschack, 1967 : 1–16.

Although related to the *atratus—vulgatissimus* group, *vuilleti* is readily distinguished by the paler antennae, and the few accessory setae on sternite seven.

LECTOTYPE ♀. FRANCE : Banyul-sur-Mer, Carline Thistle, viii.1926 (*R.S.B.*).

Thrips albipes Bagnall

(Text-fig. 20)

Thrips albipes Bagnall, 1914b : 25–26.
Physothrips albipes Bagnall, 1916b : 401.
Physothrips pallipes Bagnall, 1916b : 400.
Thrips pallipes Bagnall, 1926c : 110.
Thrips versicolor Bagnall, 1926c : 108–109.
Thrips albipes Bagnall ; Mound, 1967a : 17.

This species has been referred by some authors to *Euthrips hawaiiensis* Morgan, 1913, which was described from two females with eight-segmented antennae in the U.S. National Museum Collection. The common Indian species *florum* Schmutz is very closely related and if it should prove identical, this is the earliest available name. In *versicolor* the head and thorax are clear yellow contrasting with the brown abdomen, and the *albipes* series are very similar in colour. The *pallipes* series are darker, the anterior part of the body being orange-brown and the abdomen dark brown. Morphologically I can find no differences between the specimens which can be interpreted as being of specific value. The eighth tergal comb is regular in typical Indian *florum* specimens, in some of the *albipes* specimens some of the microtrichia have multiple apices, and in the *pallipes* series certain females have a few microtrichia fused to form one or more triangular teeth. The sculpture and chaetotaxy is apparently identical.

LECTOTYPE ♀. Japan : Okinawa, Luchu Island, *Nasturtium*, v.1913 (*J. E. A. Lewis*).

LECTOTYPE ♀ of '*Physothrips albipes*'. Japan : Okinawa, Luchu Island, *Nasturtium*, v.1913 (*J. E. A. Lewis*).

Syntypes ♀ of *Thrips* and *Physothrips pallipes*. Japan : Kobe, Harada, *Chrysanthemum*, 15.xi.1915 (*J. E. A. Lewis*).

Syntype ♀ of *versicolor*. Fiji : Tamavui, Banana, 1.x.1924 (*Campbell*).

Thrips assimilis Bagnall

Thrips assimilis Bagnall, 1913f : 294.

The unique holotype on which this species was based is on a slide which has turned black. Bagnall compared *assimilis* to *albopilosus* Uzel.

Holotype ♀. Tunisia : Sousse, 28.ii.1903 (*Biro*).

Thrips coloratus Schmutz

(Text-fig. 19)

Thrips colorata Schmutz, 1913 : 1013.
Thrips japonicus Bagnall, 1914c : 288. **Syn. n.**
Thrips melanurus Bagnall, 1926c : 111–112. **Syn. n.**

Type material of *coloratus* has not been examined, the above synonymies being based on specimens determined by Dr. H. Priesner. The species has been found to be common in North West Pakistan. Apart from the characters indicated in Table I this species is readily distinguished from the *florum* group by the fact that antennal IV is darker than antennal II. The hind margin of tergite eight is distinctly concave and the teeth of the comb are long and distinct.

LECTOTYPE ♀ of *japonicus*. Japan : Kobe, xi.1913 (*J. E. A. Lewis*).

Holotype ♀ of *melanurus*. India : Darjiling, Ringtong Tea Estate, on rose, 14.vi.1916 (*E. A. Andrews*).

Thrips crassicornis Bagnall

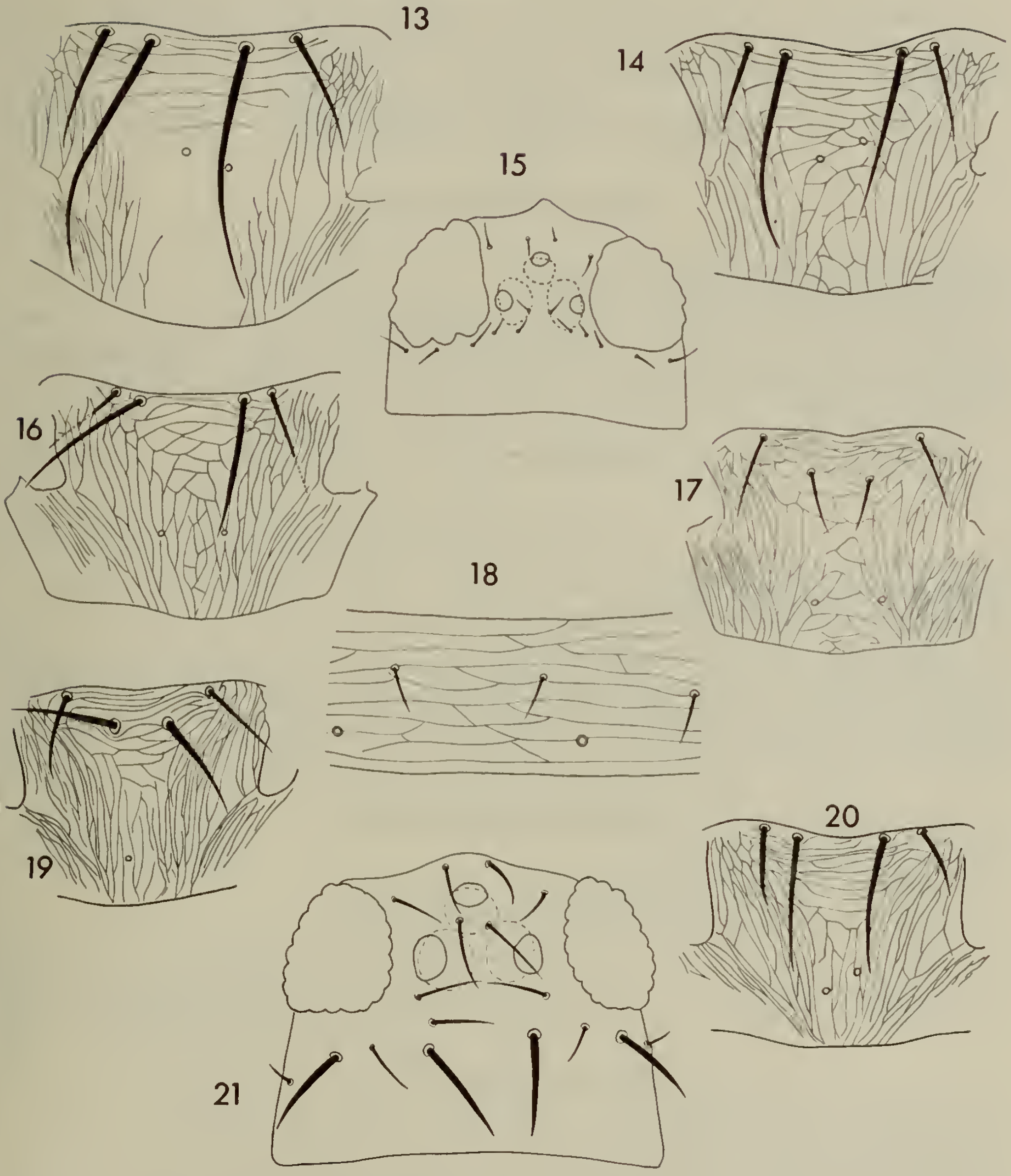
Thrips crassicornis Bagnall, 1923b : 59–60.
Thrips crassicornis Bagnall ; Mound, 1967a : 20.

Contrary to Bagnall (1928d : 130) this species can be separated from *euphorbiae* Knechtal, 1922, by the greater length of the postero-angular pronotal setae.

Syntypes ♀. England : Devon, Newton Abbot, *Euphorbia* flowers.

Thrips euphorbiicola Bagnall

Thrips euphorbiae Bagnall, 1924c : 115, *nec* Knechtel, 1922.
Thrips euphorbiicola Bagnall, 1924j : 273–274 (nom. nov. for *euphorbiae* of Bagnall, 1924).
Thrips euphorbiella Bagnall, 1927b : 575–576. **Syn. n.**
Thrips euphorbiicola Bagnall ; Mound, 1967a : 19.



FIGS. 13–21. Figs. 13 & 14. Metanotum : 13, *Taeniothrips typicus* (*varicornis* paratype). 14, *Taeniothrips nigricornis* (*brunneicornis* paratype). Figs. 15 & 16. *Pseudanaphothrips achaetus* : 15, Dorsal chaetotaxy of head. 16, Metanotum. Figs. 17 & 18. *Glaucothrips glaucus* : 17, Metanotum. 18, Sculpture on abdominal tergite V. Figs. 19 & 20. Metanotum of *Thrips* species : 19, *T. coloratus* (*melanurus* holotype). 20, *T. albipes*, syntype female. Fig. 21. *Euphysothrips minozzii*, dorsal chaetotaxy of head.

Bagnall described *euphorbiella* from three females collected in Southern France. These specimens are here considered to be small examples of *euphorbiicola*.

LECTOTYPE ♀. England : Hampshire, New Forest, *Euphorbia amygdaloides*, iv.1923.

Syntypes ♀ of *euphorbiella*. France : Plage d'Hyères, *Euphorbia paralias*, ix.1927 (*R.S.B.*).

Thrips flavidus Bagnall

Thrips flavidus Bagnall, 1916b : 402.
Physothrips flavidus Bagnall, 1916b : 399–400.

Bagnall stated that he was describing *flavidus* in two separate genera ' to avoid confusion by other workers . . . '. The species is very close to *T. flavidulus* q.v. Antennal III is light brown distally, although I and II lack cuticular colour.

LECTOTYPE ♀. Japan : Kobe, vi. 1915 (*J. E. A. Lewis*).

Holotype ♀ of '*Physothrips flavidus*'. Japan : Kobe, vi.1915 (*J. E. A. Lewis*).

Thrips flavus Schrank

Thrips flava Schrank, 1781 : 297.
Physothrips flavus Bagnall, 1928c : 98.
Thrips flavus Schrank ; Mound, 1967 : 18–19.

The female specimen that Bagnall referred to is not in the collection but the male is still available. This is an aberrant *Thrips flavus* and the collection data are: England : Cheshire, Delamere, *Chamaenerion angustifolium*, 9.viii.1925 (*H. Britten*).

Thrips fulvipes Bagnall

Thrips fulvipes Bagnall, 1923b : 59.
Thrips fulvipes Bagnall ; Mound, 1967a : 18.

The larval host of this species, which is not uncommon in England, is *Mercurialis perennis*.

Syntypes ♀. England : Oxfordshire, Shotover, *Mercurialis perennis*, 6.v.1916 (*H. Britten*).

Thrips funebris Bagnall

Thrips funebris Bagnall, 1924j : 274.
Thrips funebris Bagnall ; Mound, 1967a : 20.

This species is known to the present author only from the micropterous holotype. The eighth tergal comb consists of a complete row of triangular teeth, and the sculpture of the abdominal tergites extends across the median area. Ocellar setae III are lateral to the first ocellus.

Holotype ♀. England : Hampshire, Hengistbury Head, *Carex vulpina*, ix.1924 (*R.S.B.*).

Thrips griseus Bagnall

Thrips griseus Bagnall, 1916b : 403.

There are eight or nine accessory setae on each sternite in this species, and these setae are barely half the length of the sternites.

LECTOTYPE ♀. JAPAN : Kobe, vi.1915 (*J. E. A. Lewis*).

Thrips herricki Bagnall

Thrips herricki Bagnall, 1926d : 545–548.

This large species, although based on North American material, is probably native to the mountains of Europe.

LECTOTYPE ♀. U.S.A. : New York, Ithaca, *Veratrum viride*, 27.vi.1924 (*G. W. Herrick*).

Thrips imaginis Bagnall

Thrips fortis Bagnall, 1926c : 109–110. **Syn. n.**
Thrips imaginis Bagnall, 1926c : 111.
Thrips imaginis var. *apicalis* Bagnall, 1926c : 111.

Although *fortis* has page priority over *imaginis*, the latter name is so well established in Australian economic literature that the present author feels justified in accepting Recommendation 24A of the International Commission on Zoological Nomenclature (1961 : 25). The species *fortis* was based on a single, squashed, contracted female. The two females of *imaginis* labelled ' Types ' do not bear any other data apart from a small label ' Reg. 41 '. In the original description several host plants and dates were mentioned from Victoria and South Australia.

Holotype ♀ of *fortis*. AUSTRALIA : Victoria, Melbourne Botanic Gardens, *Canna*, 13.ii.1923 (*R. Kelly*).

Thrips juniperina Linnaeus

Physapus fuscus, alis albicantibus De Geer, 1744 : 3–6.
Thrips juniperina Linnaeus, 1758 : 457.
Thrips juniperina Linnaeus ; Bagnall, 1909f : 39–41.
Thrips junipericola Morison, 1948 : 66.
Thrips juniperina Linneaus ; Mound, 1967a : 21.

Linnaeus describes this species merely as ' T. elytris niveis, corpore fusco ', ' Habitat in Juniperis ', but he gives the earlier reference to De Geer quoted above. De Geer (1744 : 3–6) describes and figures (tab. I ; figs. 1–2) a typical member of *Thrips* genus which he finds throughout the year on the buds and in galls of Juniper bushes. Unfortunately Linnaeus, when naming *juniperina* and *physapus*, gives the two page references to De Geer the wrong way round. Contrary to the statement by Morison, there is nothing in the original description of the Juniper Thrips by De Geer, subsequently named *juniperina* by Linnaeus, to suggest that this is not the common species found on that plant in Northern Scotland.

Thrips major Uzel

Thrips major Uzel, 1895 : 179–181.
Physothrips inaequalis Bagnall, 1928c : 98–99.
Thrips major Uzel ; Mound, 1966b : 56.

Bagnall described *inaequalis* from two females, one of which, labelled ' Type ', has been re-examined recently and found to be an abnormal specimen of *major* Uzel.

LECTOTYPE ♀ of *inaequalis*. ENGLAND : Yorkshire, Tadcaster, *Tamus* flowers, vi.1920 (*R.S.B.*).

Thrips menyanthidis Bagnall

Thrips menyanthidis Bagnall, 1923b : 58.
Thrips menyanthidis Bagnall ; Mound, 1967a : 20.

In the opinion of the present author, this species is a synonym of *fuscipennis* Haliday, from which it can be separated only by reason of its larger size. G. D. Morison, however, has studied the thrips on *Menyanthes* in the field for several years, and considers that they are specifically distinct. *Thrips paluster* Reuter can be distinguished by the complete comb on tergite eight and details of the metanotum.

LECTOTYPE ♀. ENGLAND : Westmorland, Patterdale, *Menyanthes trifoliata*.

Thrips origani Priesner

Thrips origani Priesner, 1926b : 272.
Thrips dyssochaetus Bagnall, 1927a : 570–571.
Thrips origani Priesner ; Bagnall, 1928d : 131–132.

There are only two or three accessory setae on sternites IV to VI in this species. The specimens of *dyssochaetus* labelled ' cotype ' come from *Origanum* at Box Hill, Surrey, England. This is the material referred to by Bagnall in 1928. The species *dyssochaetus* was described from females collected in FRANCE : Ax-les-Thermes, *Origanum vulgare*, viii.1926, but this material is not in Bagnall's Collection.

Thrips pallidulus Bagnall

Thrips pallidulus Bagnall, 1924b : 424–425.

This species can be distinguished from both *flavidulus* and *flavidus* by the large equiangular reticulations on the median part of the metanotum.

LECTOTYPE ♀. [INDIA: Bengal, Pusa (*Lefroy*)].

Thrips paludosus Bagnall

Thrips paludosus Bagnall, 1913k : 235–236.

The only available specimens, the type male and female, are on slides which have turned black. The original collection data were ; ENGLAND : Oxfordshire, Weston-on-the-Green, on sedge, viii.1913.

Thrips poultoni Bagnall

Thrips poultoni Bagnall, 1933c : 656–657.

Holotype ♀. CANARY ISLANDS : Las Palmas, 28.vi.1914 (*E. B. Poulton*).

Thrips pusillus Bagnall

Thrips pusillus Bagnall, 1926c : 112–113.
Thrips meliaefloris Hood, 1932 : 138–140. **Syn. n.**

A paratype of *meliaefloris* has been compared with females of *pusillus* collected in Sierra Leone, Ghana, Nigeria and Kenya. The colour of the body is here considered to be rather variable, but the apex of the abdomen is commonly darker than the base.

LECTOTYPE ♀. GHANA : Aburi, *Strophanthus gratus* flowers, 9.xi.1915 (*W. H. Patterson*).

Thrips robustus Priesner

Thrips robustus Priesner, 1920 : 76.
Thrips robustus var. *pyrenaica* Bagnall, 1926e : 653.
Thrips robustus Priesner ; Priesner, 1964 : 95.

The variety *pyrenaica*, proposed for some material collected in the Pyrenees in France and Andorra, is regarded by Priesner as a form of *robustus*. No specimens bearing the variety name are present in Bagnall's Collection.

Thrips tabaci Lindemann

Thrips tabaci Lindemann, 1888 : 61–75.
Thrips hololeucus Bagnall, 1914b : 24–25. **Syn. n.**
Thrips adamsoni Bagnall, 1923b : 58–59.
Thrips debilis Bagnall, 1923b : 60.
Thrips frankeniae Bagnall, 1926e : 654.
Thrips dorsalis Bagnall, 1927b : 576–577.
Thrips tabaci Lindemann ; Mound, 1967a : 19.

Thrips tabaci is variable in both colour and size but it can be distinguished by the possession of four setae on the distal half of the fore vein of the fore wing, and by the absence of the pori found in most other *Thrips* species anterolateral to the median setae of the ninth tergite. The second instar larva is remarkable in that it has no spiracles on abdominal segment two.

LECTOTYPE ♀ of *hololeucus*. JAPAN : Kobe, vii.1913 (*J. E. A. Lewis*).

LECTOTYPE ♀ of *adamsoni*. ENGLAND : Durham, Brockwell, *Menyanthes trifoliata* (*R. Adamson*).

Holotype ♀ of *debilis*. ENGLAND : Isle of Wight, near Blackgang Chine, on heath.

LECTOTYPE ♀ of *frankeniae*. FRANCE : Perpignan, *Frankenia*, viii.1926 (*R.S.B.*).

Syntypes ♀ of *dorsalis*. ENGLAND : Surrey, Woldingham, *Verbascum nigrum*, vii.1924 (*R.S.B.*).

TRYPHACTOTHRIPS Bagnall

Tryphactothrips Bagnall, 1919 : 256. Type-species *Dinurothrips rutherfordi*, by original designation.
Tryphactothrips Bagnall ; Bagnall, 1921b : 264.
Tryphactothrips Bagnall ; Stannard & Mitri, 1962 : 214–215.

As a result of the revision by Stannard and Mitri, *Tryphactothrips* is now regarded as a monotypic genus.

Tryphactothrips rutherfordi (Bagnall)

Dinurothrips rutherfordi Bagnall, 1915a : 319–320.
Tryphactothrips rutherfordi (Bagnall) ; Stannard and Mitri, 1962 : 215.

This species is known only from the original material and the antennae have yet to be described.

Holotype ♀. CEYLON : Peradeniya, *Allamanda* leaves, 27.iii.1914 (*A. Rutherford*).

PHLAEOTHRIPIDAE

Abiastothrips schaubergeri (Priesner)

Trichothrips schaubergeri Priesner, 1920 : 86–87.
Cratothrips priesneri Bagnall, 1933c : 658–659.
Abiastothrips schaubergeri (Priesner) ; Priesner, 1964 : 141.

This species is very similar to *Polyphemothrips* species, but the monotypic genus *Abiastothrips* is retained by Stannard (1957 : 78) on account of the small size of the maxillary palps.

Holotype ♀ of *priesneri*. AUSTRIA : Warmbad-Villach, dead branch, ix.1929 (*R.S.B.*).

Acaciothrips ebneri (Karny)

Gynaikothrips ebneri Karny, 1920a : 28–29.
Gynaikothrips obscuripes Bagnall, 1921c : 362–364.
Acaciothrips ebneri (Karny) ; Priesner, 1965 : 386–389.

Priesner has removed this species from *Gynaikothrips* on account of the short head and tube and the absence of accessory cilia on the fore wing. The insect causes terminal leaf galls on *Acacia* species very commonly along the Nile valley in Egypt and Sudan, and the present author has examined specimens from Ibadan, Nigeria.

LECTOTYPE ♀ of *obscuripes*. [EGYPT : Ezbst el Nakhl, *Acacia arabica*, vi.1909 (*F. C. Willcocks*)], Reg. 306.

ACALLUROTHRIPS Bagnall

Acallurothrips Bagnall, 1921b : 269. Type-species *A. macrurus*, by original designation.

Bagnall erected this genus for two species, each based on a badly damaged unique. It is not possible to redefine the genus from these specimens although it may be noted that the praepectus is apparently absent, the maxillary stylets broad and V-shaped within the head, and the apex of the tube strongly constricted. Stannard (1957) indicates that the genus is probably related to *Pygothrips* and *Nesothrips*.

Acallurothrips macrurus Bagnall

Acallurothrips macrurus Bagnall, 1921b : 270–271.

The antennae are seriously damaged but the suture between segments VII and VIII is probably incomplete. The sense cones are long and slender, two on III and three on IV. The fore tarsi are short with a stout tooth laterally and apical claw, the mesonotum weakly sculptured but the pelta strongly reticulate and moderately wide.

Holotype ♀. SEYCHELLES : Mahé, [Mt. Sebert, 2,000 ft., 1908–09 (*H. Scott*)].

Acallurothrips proturus Bagnall

Acallurothrips proturus Bagnall, 1921b : 269–270.

The fore tarsus bears a stout apical claw but the lateral tooth appears to have been broken.

Holotype ♀. SEYCHELLES : Silhouette, [Mare aux Cochons, 1,000 ft., ix.1908 (*H. Scott*)].

Acanthothrips nodicornis (Reuter)

Phloeothrips nodicornis Reuter, 1880 : 16.
Acanthothrips americanus Bagnall, 1933b : 123.

Bagnall described *americanus* from two specimens from North America, in which the hind tibiae are scarcely paler at their extremities than they are medially. In typical specimens of *nodicornis* the hind tibiae are yellow at base and apex. The genus *Acanthothrips* has been used as a subgenus of *Phlaeothrips* by some authors but can be distinguished by ; (1) antennal IV bears three sense cones and the apex of the segment is prolonged beyond the base of these cones ; (2) the meso- and metanota and sometimes the pronotum are heavily sculptured. The present author has examined *albivittatus* Hd. and *vittatus* Hd., as well as one syntype of *albovittatus* Schille which should also be included in this genus (**comb. n.**).

LECTOTYPE ♂ of *americanus*. MICHIGAN, U.S.A. : Baldwin, on rotting poplar stump, 18.viii.1908 (*J. D. Hood*).

ACTINOTHRIPS Bagnall

Actinothrips Bagnall, 1909k : 332–333. Type-species *A. longicornis*, by monotypy.
Actinothrips Bagnall ; Stannard, 1957 : 90–91.

Actinothrips longicornis Bagnall

Actinothrips longicornis Bagnall, 1909k : 333–334.
Actinothrips longicornis Bagnall ; Hood, 1935 : 247.

All that remains of the unique specimen upon which this species was described is the tube mounted on a slide. The rest of the specimen is apparently lost as it was not returned to Copenhagen, the published depository. The original locality was VENEZUELA : Caracas (*Meinert*).

ALEURODOTHRIPS Franklin

Aleurodothrips Franklin, 1909 : 228. Type-species *Cryptothrips fasciapennis* Franklin, by monotypy.
Microcanthothrips Bagnall, 1914c : 295–296. Type-species *Cephalothrips spinosus* Bagnall, by monotypy.

Aleurodothrips fasciapennis (Franklin)

Cryptothrips fasciapennis Franklin, 1908 : 727–729.
Cephalothrips spinosus Bagnall, 1909d : 174–175.

Franklin's description was based on a unique female and Bagnall's on a unique male. The species is apparently pan-tropical and is unusual amongst the Tubulifera in having banded wings. The males have a stout spur on the internal margin of the fore femora, and a comb of four or more setae medially on sternite five.

Holotype ♂ of *spinosus*. BELGIUM : Brussels Botanical Gardens (under glass), *Strelitzia nicolai*, iv.1908.

ANACTINOTHRIPS Bagnall

Anactinothrips Bagnall, 1909k : 329–330. Type-species *A. meinerti*, by monotypy.
Anactinothrips Bagnall ; Stannard, 1957 : 93.

As indicated by Stannard this genus is close to *Elaphrothrips*. The praepectus is present and the mesopraesternum very broad. In the three species described by Bagnall there is only a single pair of wing retaining setae on each tergite. The antennal sense cones are much shorter than the antennal setae, there are two sense cones on III and four on IV.

Anactinothrips distinguendus Bagnall

Anactinothrips distinguendus Bagnall, 1914f : 379–380.

Holotype ♂. GUYANA : Bartica, Mango leaves, 15.vi.1913 (*G. E. Bodkin*).

Anactinothrips longisetis Bagnall

Anactinothrips longisetis Bagnall, 1926d : 556–557.

Holotype ♀. GUYANA : Cattle Trail Survey, vi.1919.

Anactinothrips meinerti Bagnall

(Text-fig. 41)

Anactinothrips Meinerti Bagnall, 1909k : 330–332.

Although the description refers to a representative of both sexes the male is apparently lost as it is in neither the British Museum (Natural History) nor the Copenhagen University Museum.

Holotype ♀. VENEZUELA : Caracas (*Meinert*).

Androthrips flavipes Schmutz

Androthrips flavipes Schmutz, 1913 : 1031–1033.
Androthrips flavipes Bagnall, 1914b : 27–28.
Androthrips flavipes Schmutz ; Ananthakrishnan, 1964 : 28–29.

Both Bagnall and Schmutz described this species from material collected in the same locality in Ceylon.

Holotype ♀ of Bagnall's species. CEYLON : Peradeniya, *Memexylon umbellatum*, 28.vi.1913 (*A. Rutherford*).

Apterygothrips hispanicus (Bagnall)

Cephalothrips hispanicus Bagnall, 1916b : 409–411.
Apterygothrips hispanicus (Bagnall) ; Zur Strassen, 1966a : 165.

The two females referred to in the original description are macropterous but the wings have been broken. A further female, from St. Cyr-sur-Mer, France, has recently been described as a new species, *priesneri* Zur Strassen.

Holotype ♀. SPAIN : [Zaragosa, 8.iv.1913 (*Navás*)].

Arrhenothrips lewisi (Bagnall) **comb. n.**

(Text-fig. 22)

Mesothrips lewisi Bagnall, 1921c : 366–367.
Mesothrips lewisi Bagnall ; Bagnall, 1924k : 636.

According to the key to *Arrhenothrips* species published by Faure (1961b : 86) this species differs from the other members of the genus with accessory fore wing cilia in having two sense cones on antennal III and three on IV. The pelta is narrow and bell-shaped with a wide posterior margin.

LECTOTYPE ♀. JAPAN : Ashiya, on grass, 5.vii.1917 (*J. A. E. Lewis*).

BACTRIANOTHRIPS Bagnall

Bactrianothrips Bagnall, 1936 : 226–227. Type-species *B. alluaudi*, by monotypy.

This monotypic genus is closely related to *Bactridothrips* and *Cervothrips* in that the male has normal spiracles on segment VIII, and the lateral processes on segment VI are reduced to small tubercles. *Eidothrips* similarly has normal spiracles on segment VIII, whereas in the males of *Bactrothrips* these spiracles are greatly enlarged and elongate dorsoventrally.

Bactrianothrips alluaudi Bagnall

Bactrianothrips alluaudi Bagnall, 1936 : 227–228.

'Type' ♂ and ♀. MADAGASCAR : Tanala forest, between Savondron and Andranomafana, 1901 (*Alluaud*). Paris Museum.

Paratypes ♀ with identical data in British Museum (Natural History).

Bactridothrips laingi Bagnall

Bactridothrips laingi Bagnall, 1926d : 558.
Bactridothrips laingi Bagnall ; Priesner, 1952 : 874–875.
Actinothrips hargreavesi Bagnall, 1926d : 555–556. **Syn. n.**

Although the name *hargreavesi* has page priority, the present author as first reviser (International Code of Nomenclature, Article 24) has adopted the name associated with the males as females are less easily recognized in this genus. The females recorded by Moulton from Natal (1930b : 416) are not *laingi* but might represent *moultoni*. The fore tibiae of *laingi* are brown, the hind tibiae weakly yellow apically, and the internal pair of epimeral setae are about half as long as the major epimerals.

Holotype ♂. SIERRA LEONE : Taninahun, 6.ii.1925 (*E. Hargreaves*).

Holotype ♀ of *hargreavesi*. SIERRA LEONE : Njala, 23.v.1926 (*E. Hargreaves*).

Bactridothrips moultoni Bagnall

Bactridothrips moultoni Bagnall, 1932e : 513–514.
Bactridothrips laingi Moulton, 1930 : 416, *nec* Bagnall, 1926.

Bagnall described this species from a single male which has yellow apices to the tibiae, and the inner epimeral seta not enlarged. This male was collected with the holotype male of *natalensis* Moulton. The single female and the broken specimen referred to by Moulton as *laingi* apparently represent either *moultoni* or *natalensis*.

Holotype ♂. SOUTH AFRICA : Zululand, Eshowe, 6–31.v.1926 (*R. E. Turner*).

Bactridothrips propinquus Bagnall

Bactridothrips propinquus Bagnall, 1936 : 228–229.
Bactridothrips propinquus Bagnall ; Priesner, 1952 : 874–876.

Holotype ♂. CONGO : Ogooue, Lambaréné, 1912 (*R. Ellenberger*). Paris Museum.

Allotype and paratype ♀ with identical data in British Museum (Natural History).

Bactridothrips serraticornis Bagnall

Bactridothrips serraticornis Bagnall, 1921d : 397.
Bactridothrips serraticornis Bagnall ; Ananthakrishnan, 1964 : 85.

It is possible that *serraticornis* may eventually be shown to be synonymous with *idolomorphus* Karny from Perak.

Holotype ♂. CEYLON : Pundaluoya (*E. E. Green*).

BACTROTHRIPS Karny

Bactrothrips Karny, 1912c : 131. Type-species *B. longiventris*, by monotypy.
Krinothrips Bagnall, 1918a : 220. Type-species *K. divergens*, by monotypy.
Bactrothrips Karny ; Priesner, 1952 : 866–876.

This genus differs from *Bactridothrips*, *Cervothrips* and *Eidothrips* in having the spiracles on abdominal segment VIII of the males much enlarged and elongate dorsoventrally. The lateral tubercles on segment VII are larger than those on VIII.

Bactrothrips divergens (Bagnall)

Krinothrips divergens Bagnall, 1918a : 220–221.
Bactrothrips divergens (Bagnall) ; Priesner, 1952 : 873–875.
Actinothrips ritchianus Bagnall, 1932e : 517–518. **Syn. n.**

There are two pairs of major epimeral setae in this species, and the hind tibiae are yellow in the apical half compared to the almost completely brown fore and mid tibiae.

Syntypes ♂ and ♀♀. GHANA : Aburi, Adawsi Rd., 27.i.1914 (*W. H. Patterson*).

Holotype ♀ of *ritchianus*. TANGANYIKA : Maraka, on tobacco, ix.1926 (*A. H. Ritchie*).

Bagnalliola terminalis (Bagnall)

Brachythrips terminalis Bagnall, 1927a : 571–573.
Bagnalliola terminalis (Bagnall) ; Priesner, 1964 : 187.

The unique holotype of this species can be recognized as a male on account of the short stout B_2 setae on abdominal segment IX.

Holotype ♂. FRANCE : Tamaris, *Erica arborea*, 1.iii.1927 (*R.S.B.*).

Caudothrips buffai Karny

Caudothrips buffai Karny, 1921 : 230.
Megathrips lesnei Bagnall, 1933c : 659–661. **Syn. n.**

The unique holotype of *lesnei* is here interpreted as a small form of *buffai* which is known from Italy and Southern France on *Quercus ilex*. The monotypic genus *Caudothrips* is distinguished from *Megathrips* in Europe by the very long tube. The pronotal antero-angular and midlateral setae are close together, and if the world fauna is taken into consideration it is unlikely that *Caudothrips* will stand.

Holotype ♂ of *lesnei*. ALGERIA : Ravin de la Femme Sauvage (env. d'Alger), xii.1892 (*P. Lesne*). Paris Museum.

Cephalothrips coxalis Bagnall

Cephalothrips coxalis Bagnall, 1926e : 657–658.
Cephalothrips spartiicola Bagnall, 1927b : 581–582. **Syn. n.**

The only specimens of *spartiicola* which have been seen are labelled ' paratypes ' and these are here regarded as the apterous forms of *coxalis*. I am grateful to Dr. zur Strassen for discussing this synonymy with Professor Bournier.

Holotype ♀. FRANCE : Banyul-sur-Mer, ' Carline-Thistle ', viii.1926 (*R.S.B.*).

Paratypes ♀ and ♂♂ of *spartiicola*. FRANCE : Plage d'Hyères, *Spartium junceum*, ix.1927 (*R.S.B.*).

CERVOTHRIPS Bagnall

Cervothrips Bagnall, 1936 : 229. Type-species *C. berlandi*, by monotypy.

This genus is related to *Bactrianothrips*, *Bactridothrips* and *Eidothrips* in the form of the spiracles on segment VIII of the male, however the lateral processes on segment VI are forked.

Cervothrips berlandi Bagnall

Cervothrips berlandi Bagnall, 1936 : 229–230.
Cervothrips berlandi Bagnall ; Priesner, 1952 : 876–877.

Priesner has recorded a male apparently of this species from the Nimba Mountains, Guinea.

Holotype ♂. CONGO : Ogoone, Lambaréné, 1912 (*Ellenberger*). Paris Museum.

CHIROTHRIPOIDES Bagnall

Chirothripoides Bagnall, 1915d : 505. Type-species *C. typicus*, by monotypy.
Chirothripoides Bagnall ; Stannard, 1957 : 38–39.

Chirothripoides typicus Bagnall

Chirothripoides typicus Bagnall, 1915d : 505–506.

The eighth abdominal sternite of this species bears several finger-like projections on the posterior margin. The tergites have one pair of rather straight wing retaining setae.

Holotype ♀. TRINIDAD : Arima, Verdant Vale, on a window (*Urich*).

CLEISTOTHRIPS Bagnall

Cleistothrips Bagnall, 1932e : 511. Type-species *C. idolothripoides*, by monotypy.

Head long, arched dorsally with numerous transverse reticulations, eyes small ; antennae seven-segmented, antennal III rather elongate, sense cones long. Maxillary stylets slender, close together in midline of head ; maxillary palps rather large. Praepectus absent, meso-praesternum well developed , only epimeral setae well developed on prothorax. Fore tarsus with a claw in female ; wings broad with numerous accessory cilia. Pelta bell-shaped ; tube long and setose.

As Bagnall indicated, this genus is close to *Docessissophothrips*, but it may prove to be a synonym of *Polyphemothrips*. From the latter genus *Cleistothrips* can be distinguished by the more elongate tube which bears numerous setae and lacks reticulations.

Cleistothrips idolothripoides Bagnall

(Text-fig. 23)

Cleistothrips idolothripoides Bagnall, 1932e : 512–513.

The following notes are based on the holotype, which lacks antennae, and two other females loaned by Miss Anne Ward of the New Zealand Department of Agriculture, Levin. This is intended to supplement the description given by Bagnall.

Dorsal surface of head with two pairs of pale major setae, postocellars 230μ, postoculars 280μ, and about twelve pairs of shaded minor setae about 35μ long. Sensoria on antennals III and IV long, extending to the midpoint of antennals IV and V. Pronotum transverse, epimeral seta pale 220μ, remaining setae dark and shorter, midlateral 80μ, postero-angular 60μ. Fore tarsus with a short blunt tooth directed forward. Fore wing with four basal setae, 35μ, 100μ, 170μ, 250μ. Pelta narrow and bell-shaped at the anterior but with long extensions basally. Lateral abdominal setae pale, long and fine, segment IX with B_1 and B_2 145μ long. Tube about 210μ long, narrowed apically, terminal setae short 70μ, surface with numerous stout setae 30–35μ long.

Holotype ♀. NEW ZEALAND : York Bay, 18.xi.1923 (*J. G. Myers*).

COENOTHRIPS Bagnall

Coenothrips Bagnall, 1924k : 629. Type-species *C. fallax*, by monotypy.
Eucoenothrips Bagnall, 1926d : 553, nomen novum for *Coenothrips*.

Bagnall's nomen novum *Eucoenothrips* was unnecessary as *Coenothrips* Bagnall cannot be regarded as a homonym of *Caenothrips* Hood according to the International Code of Zoological Nomenclature, Article 56a. The only species is very close to *Polyphemothrips*, from which it can be distinguished by the small maxillary palps, and the small expanded postocular setae placed laterally and more than twice their length behind the eye.

Coenothrips fallax Bagnall

Coenothrips fallax Bagnall, 1924k : 629–630.

Holotype ♀. Australia : Victoria, Healesville, *Erythraea australis* flower, 21.xii.1913 (*A. E. Shaw & R. Kelly*).

COMPSOTHRIPS Reuter

Compsothrips Reuter, 1901 : 214. Type-species *Phloeothrips albosignata* Reuter, by monotypy.
Leurothrips Bagnall, 1908c : 196. Type-species *L. albomaculata*, by original designation.

The second species, *linearis*, described in *Leurothrips* is now regarded as a synonym of *Liothrips oleae* (Costa).

Compsothrips albosignatus (Reuter)

Phloeothrips albosignata Reuter, 1884 : 290.
Leurothrips albomaculata Bagnall, 1908c : 196–198.
Compsothrips albosignatus (Reuter) ; Priesner, 1964 : 146.

There is no locality given on the type specimens of *albomaculata*, but Priesner states that the species occurs in Southern Europe and Western North Africa.

Holotype ♀ of *albomaculata*. Ex Pascoe Collection, BM 1893–60.

CRANIOTHRIPS Bagnall

Craniothrips Bagnall, 1915d : 504. Type-species *C. urichi*, by monotypy.
Craniothrips Bagnall ; Stannard, 1957 : 39–40.

The praepectus is well developed but the mesopraesternum degenerate in this genus. Antennal segment III bears two slender sense cones, and segment IV bears one short dorsal and two slender lateral sense cones. The pelta is triangular but weakly sclerotized and the abdominal tergites bear two pairs of wing retaining setae. The head and pronotum are figured by Stannard.

Craniothrips urichi Bagnall

Craniothrips urichi Bagnall, 1915d : 504–505.

There are six females remaining of the type series in the Bagnall Collection.

LECTOTYPE ♀. Trinidad : Capara, *Inga* sp. leaves, viii.1913 (*Urich*).

Cryptothrips nigripes (Reuter)

Phloeothrips nigripes Reuter, 1880 : 11.
Cryptothrips major Bagnall, 1911c : 60–61.
Cryptothrips williamsi Bagnall, 1933b : 120–121.
Cryptothrips nigripes (Reuter) ; Priesner, 1964 : 141.

Bagnall described his two species from uniques, *major* on account of its large size and *williamsi* because of the long pronotal setae.

Holotype ♀ of *major*. NORWAY : Bygdo near Christiana, lime tree leaves, 27.vi.1909 (*R.S.B.*).

Holotype ♂ of *williamsi*. ENGLAND : Surrey, Merton, on hazel sticks, 16.xii.1912 (*C. B. Williams*).

'***Cryptothrips*' *shavianus*** Bagnall

Cryptothrips shavianus Bagnall, 1918a : 216–217.

This species has a heavy conical tube much as in *Acallurothrips* but it differs from both that genus and *Diplochelaeothrips* in having antennal VIII constricted basally. The pronotum has a concave anterior margin but the fore tibiae are not armed as they are in *Pharetrothrips*. A new genus will probably be required when further material becomes available for study.

LECTOTYPE [probably ♀]. AUSTRALIA : Victoria, Healesville, *Acacia linearis* branch with galls, 31.i.1916 (*R. Kelly*).

DACTYLOTHRIPS Bagnall

Dactylothrips Bagnall, 1923c : 629–630. Type-species *D. australis*, by monotypy.

This genus is apparently related to *Adrothrips* Moulton in the shape of the tube, the armed fore tibiae and tarsi, and the absence of postocular setae and fore wing accessory cilia. Abdominal tergites II to IV have two pairs of wing retaining setae, but the lateral abdominal setae of tergites III to VII are borne on bifurcate tubercles which extend medially. The pronotum is not long and only the epimeral setae are well developed.

Dactylothrips australis Bagnall

Dactylothrips australis Bagnall, 1923c : 630.

Holotype ♀. AUSTRALIA : Victoria, Healesville, dead *Acacia dealbata*, 17.i.1914 (*R. Kelly*).

DERMOTHRIPS Bagnall

Dermothrips Bagnall, 1910d : 677–678. Type-species *D. hawaiiensis*, by monotypy.

Cuticle largely reticulate. Head longer than broad, sharply constricted basally ; cheek setae arising from tubercles ; postocular setae close to inner posterior margin of eye, about half as long as eye, one pair of postocellar setae rather shorter ; maxillary stylets V-shaped, mouth cone rounded. Pronotal major setae small ; praepectus present, mesopraesternum small. Fore wings when present without accessory cilia, basal wing setae small ; abdominal tergites with two pairs of wing retaining setae. Pelta broad, tube weakly constricted apically.

Dermothrips hawaiiensis Bagnall

Dermothrips hawaiiensis Bagnall, 1910d : 678–680.

LECTOTYPE ♀ aptera. HAWAII, MAUAI : Haleakala, over 5000 ft., x.1896 (*Perkins*).

DICERATOTHRIPS Bagnall

Diceratothrips Bagnall, 1908c : 193. Type-species *D. bicornis*, by monotypy.
Dichaetothrips Hood, 1914 : 164–165. Type-species *D. brevicollis*, by monotypy.
Dichaetothrips Hood as subgenus, Stannard, 1957 : 96–98.
Ethirothrips Karny, 1925a : 133. Type-species *Liothrips thomasseti* Bagnall, designated by Priesner, 1949 : 129. **Syn. n.**
Percipiothrips Ananthakrishnan, 1964 : 72. Type-species *Mesothrips indicus*, by monotypy. **Syn. n.**

The type-species of *Dichaetothrips* has not been seen by the present author, but Stannard has indicated that the Hawaiian *brevicornis* Bagnall is congeneric with *brevicollis*. Stannard has also indicated on a slide in the Bagnall collection that *Ethirothrips nigricornis* (Bagnall) should be placed in *Diceratothrips*. *Percipiothrips* was described in the Phlaeothripinae but can be recognized as a Megathripine from the broad band-like maxillary stylets arranged as a broad V within the head, and also from the three pairs of long setae on tergite IX of the male. Specimens from Zululand identified by J. C. Faure as *Scotothrips vitreipennis* Priesner also belong on this group. The genus may be redefined as follows:

Head moderately long, almost parallel-sided, often weakly extended in front of eyes, each cheek with a few setae. Maxillary stylets broad and band-like, wide apart in head. Postocellar setae well developed, usually longer than side of ocellar triangle ; interocellar setae sometimes long. Postocular setae arise behind inner margin of eyes ; vertex usually with one pair of moderately stout setae medially. Antennae eight-segmented, two sense cones on III, and four or five on IV ; segment VIII not strongly constricted basally ; segments V and VI weakly extended ventrally in some species. Pronotum with five pairs of major setae, epimeral sutures complete ; praepectus present, mesopraesternum well developed. Fore tarsus with a large broad-based tooth ; fore wing with numerous accessory cilia. Metanotum and pelta reticulate ; pelta broad, lateral lobes curve forward slightly away from tergite II. Abdominal tergites each with a single pair of wing retaining setae ; tube fairly long, frequently constricted apically, terminal cilia weak.

Diceratothrips is here interpreted on a broad basis in order to draw together a group of species which have many characters in common but most of which are known from inadequate material. It is possible that the American species can be separated from the African and Oriental species on the basis of the position of insertion of the antennae and the presence of ventral prolongations on antennals V and VI. However *brevicollis* Hood, the type-species of *Dichaetothrips*, is not know to the present author. The species in which the tube has straight sides may need to be separated, but this character as well as the presence of sculpturing on the tube and the proximity of the maxillary stylets may be affected by the mounting procedure. The African genus *Isopterothrips* is very close to *Diceratothrips* but has very slender lateral lobes to the pelta, only three sense cones on antennal IV, and the mesopraesternum is sexually dimorphic. The differences between the species discussed here are summarized in the following key:

1 Interocellar setae longer than postocellars ; antennals V and VI with ventral apical prolongation ; pelta broad not trilobed ; posterolateral angles of mesopraesternum form a right angle . . . . **armatus** and **bicornis**

– Not with the above combination of characters ; posterolateral angles of mesopraesternum obtuse 2

2 Postocellar setae shorter than one side of ocellar triangle 3

– Postocellar setae longer than one side of ocellar triangle 5

3 Fore wing with less than 20 accessory cilia ; pronotal anteromarginal setae about half as long as antero-angulars or less ; tube sculptured **madagascariensis** (and **vitreipennis**)

– Fore wing with about 30 accessory cilia 4

4 Tube strongly sculpture ; pelta with slender lateral lobes . . . . . . **brevis**

– Tube apparently straight-sided, without sculpture ; pelta broad not trilobed **angusticornis**

5 Antennae quite dark, segment IV with five sense cones 6

– At least antennal III yellowish 8

6 Seta B_1 on tergite IX about half as long as tube . . . . **intrepidus**

– Seta B_1 on tergite as long as tube 7

7 Fore tibiae as dark as fore femora . . . . **brevicornis**

– Fore tibiae paler than fore femora . . . . **thomasseti**

8 Fore tarsal claw absent in female 9

– Fore tarsal claw present in female 10

9 Antennal IV yellow, sense cones about half as long as segment V . . . **difficilis**

– Antennal IV brown distally, sensoria shorter . . . . . **seychellensis**

10 Fore wing with about 30 accessory cilia ; sense cones on antennals III and IV about half as long as these segments . . . . **indicus**

– Fore wing with less than 20 accessory cilia 11

11 Tube with straight sides, not sculptured . . . . **karnyi**

– Tube constricted apically, sculptured as in *brevis* . . . . . . **beesoni**

Diceratothrips angusticornis (Bagnall) **comb. n.**

Mesothrips angusticornis Bagnall, 1924k : 638–639.

This species resembles *karnyi* in that the tube has straight sides, but the postocellar setae are short and the pelta is not trilobed.

Holotype ♂. CEYLON : Peradeniya, swept from bushes (*E. E. Green*).

Diceratothrips armatus Bagnall

(Text-figs. 25, 34)

Diceratothrips armatus Bagnall, 1910a : 385–386.

Bagnall made no attempt to compare this species with the type of the genus. Stannard (1957 : 96) indicates that individuals vary in armature depending on size in this genus, and so Bagnall's reference to ' the strongly characterized fore legs ' may be of little value. The species is very close to *bicornis* but appears to have less strongly contrasting dark and light areas on the fore wing, and rather weaker antero-angular pronotal setae.

Syntypes ♂ and ♀. VENEZUELA : La Moka, iii.1891 (*Meinert*).

Diceratothrips bicornis Bagnall

Diceratothrips bicornis Bagnall, 1908c : 194–195.

The unique holotype of this species is very similar to *armatus*. The basal half of the fore wing is dark brown in contrast to the hyaline apical half, and the pronotal antero-angular setae are dark and stout.

Holotype ♀. BRAZIL : Santarem, R. Amazon (*Bates*).

Diceratothrips brevicornis Bagnall

(Text-fig. 26)

Diceratothrips brevicornis Bagnall, 1910d : 696–698.

The postocellar setae of the unique holotype male are considerably longer than the interocellar setae, contrary to Bagnall's original figure. The species is very close to *thomasseti* but the head seems to be rather more constricted basally and the fore tibiae are quite dark.

Holotype ♂. HAWAII, OAHU : Kawailoa gulch, iv.1901 (*Perkins* 768).

Diceratothrips brevis (Bagnall) **comb. n.**

(Text-figs. 24 & 35)

Adiaphorothrips brevis Bagnall, 1921b : 276–277.

The unique holotype of this species is very similar to *vitreipennis* Priesner and *madagascariensis* Bagnall, but the specimen lacks antennae and is not in a suitable condition for comparison as it has been badly distorted in mounting. The tube is sculptured, the mesopraesternum quite slender and the maxillary stylets probably formed a narrow V as in the species mentioned above.

Holotype ♂. SEYCHELLES : Mahé [high damp forest between Trois Frères and Morne Seychellois, 1,500–2,000 ft., xii.1908].

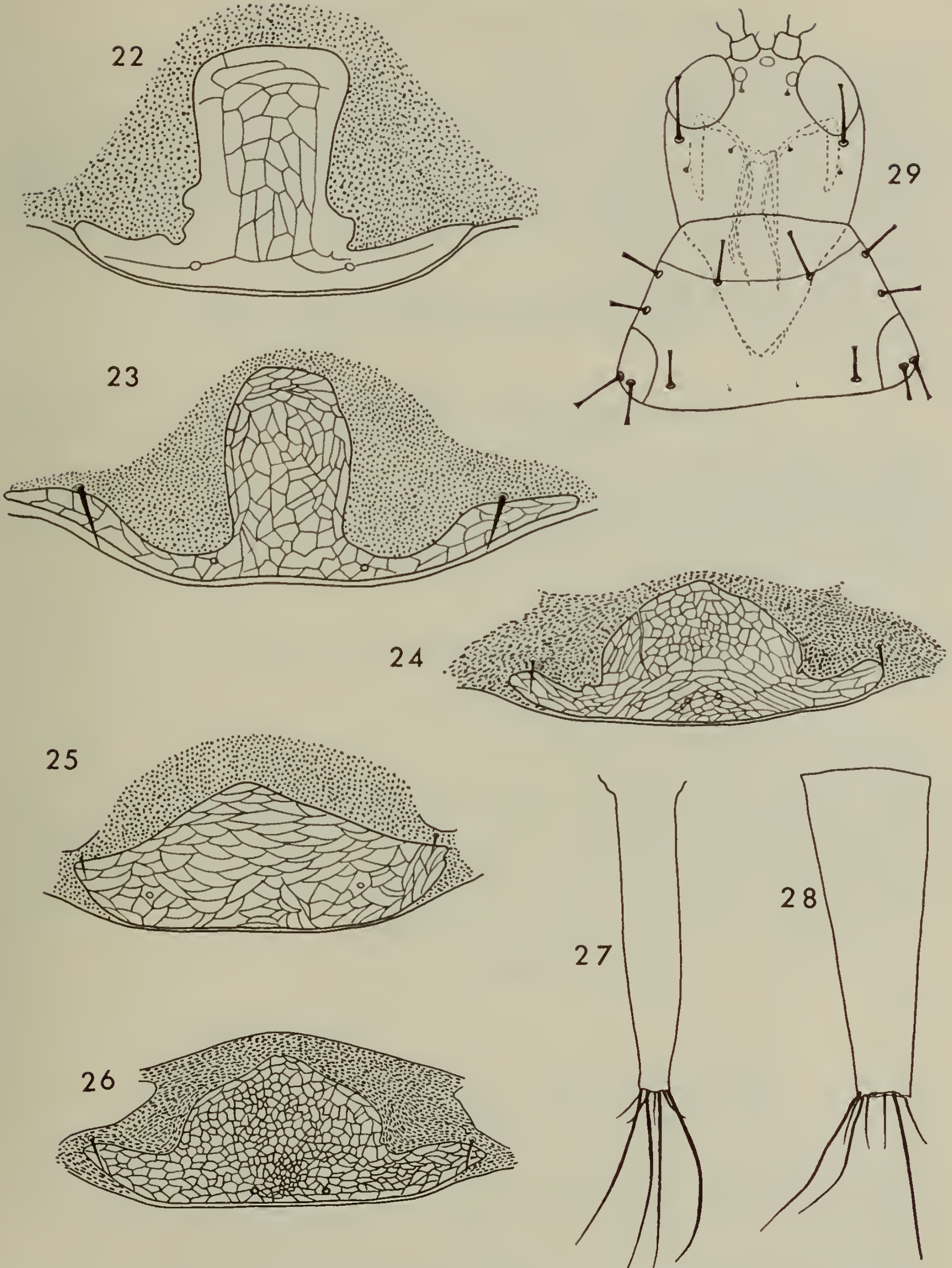
Diceratothrips difficilis (Bagnall) **comb. n.**

(Text-fig. 40)

Cryptothrips difficilis Bagnall, 1921b : 276.

As Bagnall has stated, this species is close to *seychellensis*, and in addition to the characters listed by him, these two differ in the length of the antennal sensoria. In *difficilis* the sensoria are long, those on IV being about half as long as segment V. From *indicus* this species is distinguished by the absence of a fore tarsal tooth in the female.

Holotype ♀. SEYCHELLES : Silhouette, near Mont Pot-à-Eau, 1,500 ft., viii.1908.



FIGS. 22–29. Figs. 22–26. Pelta (abdominal tergite I). 22, *Arrhenothrips lewisi*, lectotype female. 23, *Cleistothrips idolothripoides*, holotype female. 24, *Diceratothrips brevis*, holotype male. 25, *Diceratothrips armatus*, syntype female. 26, *Diceratothrips brevicornis*, holotype male. Figs. 27 & 28. Tube (last abdominal segment) : 27, *Diceratothrips thomasetti*. 28, *Diceratothrips karnyi*. Fig. 29. *Eurhynchothrips convergens*, head and pronotum of female paratype to show maxillary bridge.

Diceratothrips indicus (Bagnall) **comb. n.**

Mesothrips indicus Bagnall, 1921c : 365–366.
Percipiothrips indicus (Bagnall) Ananthakrishnan, 1964 : 72–74.

The maxillary stylets of the type specimens of *indicus* are broad and band-like, forming a broad V in the middle of the head. Furthermore the male lacks sternal glandular areas and has three pairs of long setae on tergite IX. These characters indicate that the species belongs in the Megathripinae. The length of the postocellar setae on the six available specimens varies from 35–60μ. The minor seta on the epimeron is about 35μ long.

LECTOTYPE ♀. INDIA : Dehra Dun, Thajbra, bark of half-dead ‘ sal ’.

Diceratothrips intrepidus (Bagnall) **comb. n.**

Liothrips intrepidus Bagnall, 1921b : 279.

The unique holotype is rather smaller than *thomasseti* and the major setae of tergite IX, although damaged, are apparently just half as long as the tube.

Holotype ?♀. SEYCHELLES : Silhouette [Mare aux Cochons, ix.1908].

Diceratothrips karnyi (Bagnall) **comb. n.**

(Text-fig. 28)

Mesothrips karnyi Bagnall, 1924k : 639–640.

The tube of *karnyi* has straight sides like *angusticornis* and is not suddenly constricted apically as in *indicus*. However the postocellar setae are long, about 80μ. The broad maxillary stylets do not form a wide V but approach each other slightly near the base of the head as in *madagascariensis*. However the surface of the tube is apparently not sculptured. *D. beesoni* Moulton, also described from Dehra Dun, has a sculptured tube which is constricted apically.

LECTOTYPE ♀. INDIA : Dehra Dun, *Albizzia lebbek*, under dead seeds in dead pods.

Diceratothrips madagascariensis (Bagnall) **comb. n.**

Cryptothrips madagascariensis Bagnall, 1936 : 220–221.

This species appears to be close to *Scotothrips vitreipennis* (Priesner) and *brevis* Bagnall in the long sculptured tube which is constricted apically, the shallow mesopraesternum, and the weak postocellar setae. Unfortunately the type-species of *Scotothrips* has not been studied, but *vitreipennis* is possibly a synonym of *madagascariensis*.

Holotype ♀. MADAGASCAR : Ambalamadakana, 1901 (*Alluaud*). Paris Museum.

Diceratothrips seychellensis (Bagnall) **comb. n.**

Cryptothrips seychellensis Bagnall, 1921b : 274–276.

This species and *difficilis* are unusual in the group in lacking a tarsal tooth in the female although this is well developed in the male. The tube bears very faint indications of sculpture near the base.

LECTOTYPE ♂. SEYCHELLES : Mahé [Cascade Estate, 1,000 ft., i–iii.1909].

Diceratothrips thomasseti (Bagnall) **comb. n.**

(Text-fig. 27)

Liothrips thomasseti Bagnall, 1921b : 288–289.
Liothrips nigricornis Bagnall, 1921b : 278–279. **Syn. n.**
Ethirothrips madagascariensis Bagnall, 1936 : 222. **Syn. n.**

Although *nigricornis* has page priority the present author as first reviser (International Code of Nomenclature, Article 24) uses the name *thomasseti* as that was designated type-species of *Ethirothrips* by Priesner. The length of the antero-angular pronotal setae is 65µ in the *nigricornis* specimens from Seychelles, 130µ in the *thomasseti* lectotype, but varies from 57–105µ in four specimens from New Guinea. The number of accessory fore wing cilia varies from about thirty five to forty five, but the differences in head shape, pronotum and tube length appear to be due to faulty preparation of the original microscope slides. The species is very close to *brevicornis* with which it may prove to be identical.

LECTOTYPE ?♀. RODRIGUES IS. : vii–ix.1918 (*H. J. Snell* & *H. P. Thomasset*).

LECTOTYPE ?♀ of *nigricornis*. SEYCHELLES : Silhouette [Mare aux Cochons, ix.1908].

Holotype ♀ of *madagascariensis*. MADAGASCAR : Ivondro, 13.vii.1901 (*Alluaud*). Paris Museum.

DIMORPHOTHRIPS Bagnall

Dimorphothrips Bagnall, 1928b : 58–60. Type-species *D. microchaetus*, by original designation.

Head about twice as long as broad, narrowed behind eyes ; eyes large ; first ocellus on conical projection overlaying base of antennae ; without major setae ; maxillary stylets slender, very low in head ; mouth cone rounded. Antennae eight segmented ; I very large ; sense cones on III to VII long, 1; 3; 2; 2; 1; respectively. Pronotum broad, eroded laterally, epimeral sutures complete ; epimeral setae long, the other major setae only about twice as long as the minor setae ; praepectus absent, mesopraesternum broad. Mesonotum and metanotum reticulate ; mesonotum eroded only at extreme apex. Fore femora expanded, fore tibiae broad at apex, fore tarsi armed. Mid and hind legs stout. Fore wings with about twenty accessory cilia ; basal setae short and stout. Pelta longer than broad, with elongate reticulations medially. Abdomen, including tube, completely reticulate ; numerous short stout setae laterally. Male sternite VIII with a continuous gland ; setae on tergite IX sexually dimorphic.

Dimorphothrips microchaetus Bagnall

Dimorphothrips microchaetus Bagnall, 1928b : 60–61.
Dimorphothrips solitus Bagnall, 1928b : 61–62. **Syn. n.**

Bagnall regarded the unique holotype of *microchaetus* as a male, but the internal rod of segment IX found in females of the Phlaeothripidae is clearly present. As the two specimens on which *microchaetus* and *solitus* were based were apparently taken together, it can be assumed that they are the female and male of the same species.

Holotype ♀. TONGA : Nukualop, leaves of *Ficus*, 20.ii.1925 (*Buxton* & *Hopkins*).

Holotype ♂ of *solitus*. TONGA : Nukualop, leaves of *Ficus*, 20.ii.1925 (*Buxton* & *Hopkins*).

DINOTHRIPS Bagnall

Dinothrips Bagnall, 1908c : 190–191. Type-species *D. sumatrensis*, by monotypy.
Dinothrips Bagnall ; Priesner, 1959 : 52–59.
Dinothrips Bagnall ; Ananthakrishnan, 1964 : 88–90.

Dinothrips sumatrensis Bagnall

Dinothrips sumatrensis Bagnall, 1908c : 191–192.
Dinothrips affinis Bagnall, 1915c : 270–271. **Syn. n.**
Dinothrips celebensis Bagnall, 1934b : 485–487. **Syn. n.**

The material upon which *affinis* apparently was based is mounted on cards with typical specimens of *sumatrensis*, as referred to by Bagnall in the original description, although none of this material is named. However the collection data is identical with that given in the original publication. In two specimens which have antennal III only narrowly shaded at base and apex, the length of this segment varies from 375µ to 400µ. In two specimens in which antennal III is more extensively shaded the length varies from 350µ to 280µ. These differences are here interpreted as individual variation, and moreover the *celebensis* holotype is regarded as a small male of *sumatrensis*. The type series of *sumatrensis* is not in the British Museum (Natural History) and the published data were: ' Several examples of both sexes and in all stages [not carded–p. 183], SUMATRA, Amsterdam Museum '.

Syntypes ♂♂ and ♀♀ of *affinis*. SARAWAK : Mt. Matang, on dead tree, xii.1913 (*G. E. Bryant*).

Holotype ♂ of *celebensis*. CELEBES : (*Savinière*). Paris Museum.

DOCESSISSOPHOTHRIPS Bagnall

Docessissophothrips Bagnall, 1908c : 201–202. Type-species *D. ampliceps*, by monotypy.
Egchocephalothrips Bagnall, 1916b : 408. Type-species *Docessissophothrips monstrosus*, by monotypy. **Syn. n.**

As Stannard has indicated, this genus is very similar to *Polyphemothrips* Schmutz, although it is possibly not monophyletic. The structure of the thoracic sternites is not visible in the holotype of *ampliceps* but both *monstrosus* and *laticeps* have the praepectus and mesopraesternum well developed. Bagnall placed *monstrosus* in a separate genus on account of the extreme elevation of the dorsal surface of the head. This appears to be unnecessary in view of the variation within the genus. There are two pairs of long postocular setae and the concentric lines of sculpture on the anterior half of the metanotum are similar in *ampliceps* and *monstrosus*.

Docessissophothrips ampliceps Bagnall

Docessissophothrips ampliceps Bagnall, 1908c : 202–203.

The pelta of the unique male is not clear but is apparently triangular. Both this sclerite and the metanotum are reticulate. The median pair of metanotal setae are small and lie just posterior to the concentric reticulations, which are at the anterior end of the sclerite. The fore wings have about thirty accessory cilia and there are two pairs of wing retaining setae on each abdominal tergite.

Holotype ♂. [MEXICO ?] Orizaba, xii.1887 (*H.S.* & *F.D.G.*).

Docessissophothrips frontalis Bagnall

Docessissophothrips frontalis Bagnall, 1914b : 26–27.

The unique holotype of *frontalis* is not in the Bagnall Collection. The specimen was collected in Japan by J. E. A. Lewis, and Bagnall gives a figure of the head viewed laterally.

Docessissophothrips laticeps Bagnall

Docessissophothrips laticeps Bagnall, 1915a : 322–323.

Although reduced ocelli are present, the female holotype is apparently apterous. The praepectus and mesopraesternum are well developed, the pelta very broad basally, and both the pelta and metanotum are devoid of sculpture. The postocellar setae are long, almost reaching the base of antennal II. There are two sense cones on antennal III and three on IV.

Holotype ♀. SARAWAK : Mt. Matang, under bark with termites, 28.i.1914 (*G. E. Bryant*).

Docessissophothrips longiceps Bagnall

Docessissophothrips longiceps Bagnall, 1916b : 407–408.

The pronotum of this species is emarginate anteriorly and as in *monstrosus*, lacks anteromarginal setae. The fore tarsus is unarmed, the metanotum reticulate, and the pelta divided into a large quadrate median sclerite and a pair of small lateral plates. The surface of the tube is reticulate in contrast to the other members of the genus. The ocelli are very reduced but there is a pair of stout interocellar setae.

Holotype ♀. MADEIRA : (*Wollaston*). BM 1858 : 21.

Docessissophothrips major Bagnall

Docessissophothrips major Bagnall, 1912a : 215.

This species is probably fairly close to *ampliceps*. The pelta and metanotum are reticulate and the postocellar setae well developed. There are about seventy accessory cilia on the fore wing, and the hind wing has about eight stout recurved setae basally apparently for attaching it to the fore wing.

Holotype ♀. Without data.

Docessissophothrips monstrosus Bagnall **comb. rev.**

Docessissophothrips monstrosus Bagnall, 1909j : 538–539.
Egchocephalothrips monstrosus (Bagnall) Bagnall, 1916b : 408.

This species is here regarded as an extreme form within the genus *Docessissophothrips*. The head is much expanded dorsally, and the pronotum deeply emarginate anteriorly as a result. There are only two pairs of major setae on the pronotum, the posteromarginals and the epimerals. There is a pair of large setal bases on the metanotum at the centre of a series of concentric rings of reticulation, and the pelta is broad basally and reticulate. Only one of the pairs of wing retaining setae is well developed on each tergite, the anterior pair being weak with the setae usually straight. The praepectus and mesopraesternum are well developed, but unfortunately the specimen is badly damaged and parts are missing.

Holotype (sex unknown). New Caledonia : Mt. Kogin (*A. Faurel*).

DOLICHOLEPTA Priesner **stat. n.**

Dolichothrips subgenus *Dolicholepta* Priesner, 1932b : 198. Type-species *Dolichothrips giraffa* Karny (synonym of *micrurus* Bagnall), by original designation.

This genus resembles *Dolichothrips* in having the praepectus present, mesopraesternum degenerate medially, elongate mouth cone, triangular pelta, abdominal tergites with more than two pairs of wing retaining setae, and sternites with the median pair of marginal setae much longer than the submedian pair. It is to be distinguished from *Dolichothrips* by the lack of accessory cilia on the fore wing, the elongate antennal III which bears only two small sense cones, the extension of the inner apical margin of antennals IV, V and VI, and the closely striate sculpture on the metanotum. *Macrophthalmothrips scotti* Morison, 1958 belongs in this genus **(comb. n.)** and may be a large specimen of *jeanneli*. The four species known to the present author may be distinguished as follows:

1 Pronotum with numerous transverse lines of sculpture ; eyes not extended on ventral surface of head, or only very weakly so ; pelta weakly reticulate . . 2
– Pronotum without any sculpture ; eyes strongly extended on ventral surface of head ; pelta strongly reticulate 3
2 Pronotal midlateral setae not developed ; postocular setae slender ***micrurus*** Bagnall

– Pronotal midlateral setae stout, broadly expanded apically, about equal to epimerals (70μ) ; postocular setae at least twice as long as their separation from hind margin of eye . . . . ***nigripes*** Bagnall
3 Mid dorsal setae of head long, extending to base of postocular setae . ***scotti*** Morison
– Mid dorsal setae of head small, not reaching base of postoculars . . ***jeanneli*** Bagnall

Dolicholepta jeanneli (Bagnall) **comb. n.**

Dolichothrips jeanneli Bagnall, 1921c : 358–359.
Dolichothrips karnyi Faure, 1925 : 153–158. **Syn. n.**

D. karnyi has been reported to differ from *jeanneli* in having longer setae on tergite IX. From a study of material collected in Kenya it is apparent that this species varies considerably in overall size, and the median setae on tergite IX may be rather shorter or rather longer than the tube. The species is known from Kenya, Uganda, Tanganyika and Transvaal.

LECTOTYPE ♀. KENYA : Molo, Mau Escarpment, 8.xii.1911 (*Alluaud* & *Jeannel*).

Dolicholepta micrurus (Bagnall)

Liothrips micrurus Bagnall, 1914c : 292–293.
Dolichothrips (*Dolicholepta*) *micrurus* (Bagnall) Priesner, 1965 : 417–420.

The original description refers to a unique female but there are two specimens in the Bagnall Collection bearing the original data. The species is known from Egypt, Sudan and Seychelles Islands, although the latter record is based on a fragmentary specimen.

LECTOTYPE ♀. EGYPT : Matarieh, near Cairo, *Zyziphus*, 9.ix.1911 (*F. C. Willcocks*).

Dolicholepta nigripes (Bagnall) **comb. n.**

Dolichothrips nigripes Bagnall, 1936 : 223.

Although the unique holotype is in a very bad condition it is clearly more closely related to *micrurus* from the Nile valley than to the East African *jeanneli*. The other species described from near Addis Ababa in Ethiopia, *scotti* Morison, is however close to *jeanneli*.

Holotype ♀. [? ETHIOPIA : between Addis Ababa and Ankober] Ethiopie méridionale, prés riviére Golba, under bark of *Makanissa*, 3.viii.1904 (*Rothschild*). Paris Museum.

DOLICHOTHRIPS Karny

Dolichothrips Karny, 1912d : 299. Type-species *D. longicollis* Karny, by monotypy.

The subgenus *Dolicholepta* is here recognized as a full genus. Several of the species treated here under *Dolichothrips* were described in *Neoheegeria*, and these two genera are probably related. *N. dalmatica* and *D. longicollis*, the type-species of these genera both have the praepectus present, mesopraesternum degenerate medially, three sense cones on antennal III, elongate mouth cone and duplicated wing cilia. They may be distinguished by the presence in *Dolichothrips* of three or more pairs of setae on the abdominal tergites anterolateral to the two pairs of wing retaining setae. Some of these setae are developed as additional wing retaining setae, whereas in *Neoheegeria* there are two pairs of wing retaining setae. The following key includes those species represented in the British Museum (Natural History) by type material, and in addition *gracilipes* R. & M. of which the author has examined specimens determined by Professor T. N. Ananthakrishnan. It should be noted that *D. citricruris* Moulton, 1949 does not belong in *Dolichothrips*.

1 Prothoracic midlateral setae very small ; antero-angular setae close to anteromarginals . . . . ***longicollis*** Karny
– Prothoracic midlaterals not much smaller than the other major setae 2
2 Legs yellow ; metanotal setae stout with expanded apices, similar to pronotal major setae . . . . ***ochripes*** Karny
– At least femora brown ; metanotal setae slender 3
3 Basal wing setae small, less than the distal width of the fore wing in length ***indicus*** Hood = ***rambhutanae*** Anan. **syn. n.**
– Basal wing setae longer than the distal width of fore wing 4
4 All tibiae yellow . . . . ***citripes*** Bagnall
– Mid and hind tibiae brown 5
5 Tergite IX with seta B1 about as long as tube ; pronotal postero-angular setae less than twice as long as anteromarginals ; basal wing seta 2 softly pointed not expanded apically . . . . ***varipes*** Bagnall
– Tergite IX setae distinctly longer than tube ; postero-angular setae more than twice as long as anteromarginals 6
6 Pronotal postero-angular setae three times as long as anteromarginals ; fore wing with nine accessory cilia . . . . ***fumipennis*** Bagnall
– Pronotal postero-angular setae twice as long as anteromarginals ; fore wing with twelve or more accessory cilia . . . . ***zyziphi*** Bagnall

Dolichothrips citripes (Bagnall) **comb. n.**

Neoheegeria citripes Bagnall, 1921c : 360–361.
Dolichothrips (*Dolicholepta*) *gracilipes* Ram. & Marg., 1939 : 46. **Syn. n.**

The original description of *gracilipes* states that the antennae are shorter than in *citripes*, but the length of the antennal segments is quite variable in three specimens in the British Museum (Natural History) collection determined as *gracilipes* by Professor Ananthakrishnan. Bagnall described his species on one female and one damaged male. The published host plant is probably an error for *Abutilon indicum* as this is the host plant of *gracilipes* in Orissa and Madras.

LECTOTYPE ♀. INDIA : Pusa, on *Alentillon indicum*, 12.x.1909 (*C. S. Misra*).

Dolichothrips fumipennis (Bagnall) **comb. n.**

Neoheegeria fumipennis Bagnall, 1921c : 360.

This species, known only from the unique holotype, is very similar to *zyziphi*, from which it can be distinguished by the longer setae on the posterior margin of the pronotum.

Holotype ♀. INDIA : Kurseong, East Himalayas, 4,700 ft., 26.iii.1910 (*F. Gravely*).

Dolichothrips varipes Bagnall

Dolichothrips varipes Bagnall, 1921c : 359.

This species is in many ways intermediate between the two genera *Dolichothrips* and *Dolicholepta*. Although the metanotal reticulations are rather narrow, the sculpture is distinct from the close striations found on the metanotum of *Dolicholepta*. Antennal segments IV, V and VI are only weakly extended on the inner apical margin in *varipes* and there are five or more accessory cilia on the fore wing. This species is known from India, Egypt and Sudan, and the present author has also examined a specimen from Ethiopia.

Syntypes ♀. INDIA : [? Coimbatore] (*Ramakrishna*).

Dolichothrips zyziphi (Bagnall) **comb. n.**

Neoheegeria zyziphi Bagnall, 1923c : 629.

Three females and two males bearing no data other than the name and registration number 186 remain in the Bagnall Collection. The original description refers only to ' several examples '.

LECTOTYPE ♂. [INDIA : Paresnoth, W. Bengal, at 4,400 ft., on *Zyziphus rugosus*, 10.iv.1909.] Reg. 186.

ECACANTHOTHRIPS Bagnall

Ecacanthothrips Bagnall, 1909c : 348. Type-species *Acanthothrips sanguineus*, by monotypy.

Ecacanthothrips sanguineus (Bagnall)

Acanthothrips sanguineus Bagnall, 1908b : 362.
Ecacanthothrips bryanti Bagnall, 1915a : 320–321.
Ecacanthothrips coxalis Bagnall, 1915b : 597.
Ecacanthothrips coxalis var. *consanguineus* Priesner, 1930 : 367–368. **Syn. n.**
Ecacanthothrips flavipes Bagnall, 1915b : 597.
Ecacanthothrips sanguineus Bagnall ; Ananthakrishnan, 1961 : 275–280.

The unique holotype of *sanguineus* is a female and not a male as originally stated, and the figures of the fore tibiae of *bryanti* and *sanguineus* are inaccurate in that the original specimens have tibial tubercles. In addition to the characters studied by

Ananthrakrishnan, it has been observed that the second (lateral) pair of postocular setae are usually acute in the female but expanded apically in the male, and the third sub-basal wing seta is acute in the male but expanded in the female. A paratype female and male of *consanguineus* have been examined.

Holotype ♂. New Guinea : Dorey. (*Wallace*).

LECTOTYPE ♂ of *bryanti*. Sarawak : Matang, 1,000 ft., on dead tree, 17.xii. 1913 (*G. E. Bryant*).

LECTOTYPE ♂ of *coxalis*. Sarawak : Mt. Matang, 1,000 ft., 2.ii.1914 (*G. E. Bryant*).

LECTOTYPE ♂ of *flavipes*. Sarawak : Matang, 1,000 ft., in white flower, 3.xii.1913 (*G. E. Bryant*).

Ecacanthothrips spinipes (Bagnall) **comb. n.**

Phloeothrips spinipes Bagnall, 1908c : 195–196.

There are about fourteen sensoria on antennal III of the unique female holotype of this species. From *sanguineus* it can be distinguished by the shorter head, unarmed femora, and broader reticulations laterally on the pelta. The postocular seta has a widely expanded assymetric apex and almost reaches the base of the antenna. The fore wings are damaged but there are probably more than twenty accessory cilia.

Holotype ♀. New Guinea : Dorey (*Wallace*).

EIDOTHRIPS Bagnall

Eidothrips Bagnall, 1918a : 219. Type-species *E. alluaudi*, by monotypy.

This genus is distinguished from the others in the *Bactrothrips* group by the presence of lateral processess on abdominal segments five and six in the male and the absence of processes from segments seven and eight. The spiracles on segment eight are small and round as in *Bactridothrips*, *Bactrianothrips* and *Cervothrips*.

Eidothrips alluaudi Bagnall

Eidothrips alluaudi Bagnall, 1918a : 219–220.

The internal epimeral seta is very small and the base of antennal III is shaded although the rest of the segment is pale. Moulton (1930b : 416) has recorded females of this species from Zululand. The type locality is in Kenya not Uganda as stated originally.

LECTOTYPE ♂. Kenya : Kijabe, Kikuyu Escarpment, xii.1911 (*Alluaud & Jeannel*).

ELAPHROTHRIPS Buffa

Elaphrothrips Buffa, 1909 : 162–163. Type-species *Idolothrips coniferarum* Pergande, 1896, designated by Andre, 1940.
Dicaiothrips Buffa, 1909 : 169–170. Type-species *Thrips schotti* Heeger, 1852, designated by Bagnall, 1910a.
Elaphoxothrips Bagnall, 1932c : 516–517. Type-species *Kleothrips athletes* Karny, by monotypy.
Klinothrips Bagnall, 1918a : 217–218. Type-species *K. femoralis*, by monotypy.
Elaphrothrips Buffa ; Priesner, 1935 : 58–60 and 1952 : 845–866.
Elaphrothrips Buffa ; Stannard, 1957 : 98–100.

This genus has been confused frequently with *Idolothrips*, and Stannard states that the differences between the two genera are ' of a minor nature '. The type-species of *Idolothrips* has been compared during the present study with more than fifty species of *Elaphrothrips* and these two genera may be distinguished as follows:

1 Pronotal antero-angular and midlateral setae close together, anteromarginals well developed, two pairs of epimerals present ; fore tarsi unarmed in both sexes ; external margin of femora angular in profile, bearing several pairs of major setae as in *Meiothrips* . . . . ***IDOLOTHRIPS***
– Pronotal antero-angular and midlateral setae not close together, anteromarginals small, one pair of major epimerals. Fore tarsi frequently armed ; fore femora expanded, external margin with a smoothly curved profile. . ***ELAPHROTHRIPS***

The difficulties in this genus have been greatly increased through the description of numerous species on solitary specimens or very short series. Bagnall's species were described before the principle of heterogonous growth in Thysanoptera was appreciated, and in view of the variation in *Elaphrothrips* species discussed by Priesner (1935), Hartwig (1948) and Hood (1955) it is likely that more synonymy awaits elucidation. The colour of the antennal segments is frequently used for species recognition within the group, but in certain species such as *E. stenocephalus* (and *Idolothrips spectrum*) the stems of antennals IV to VI are not constant in colour although variation from clear yellow to pure brown has not been observed. The variation involved is in the shades of yellowish brown and brownish yellow, and forms with this intermediate colouring need special attention.

Elaphrothrips aethiopiae Bagnall

Elaphrothrips aethiopiae Bagnall, 1936 : 225–226.
Elaphrothrips aethiopiae Bagnall ; Priesner, 1952 : 865.

Holotype ♂. [? ETHIOPIA] Ethiopie meridionale, Abou, 31.vii.1904 (*Rothschild*). Paris Museum.

Elaphrothrips affinis (Bagnall)

Idolothrips affinis Bagnall, 1908c : 213–214.
Idolothrips assimilis Bagnall, 1908c : 213. **Syn. n.**
Dicaiothrips distinctus Bagnall, 1910a : 378–379. **Syn. n.**

Bagnall described these three forms from three uniques which bear identical collection data. In view of the variation now known in *Elaphrothrips* species from

South America (Hood, 1955), it appears reasonable to treat the slender differences between these three specimens as variation within one species. The postocular setae of the male (*distinctus*) are small, whereas these setae are well developed in the two females (*affinis* and *assimilis*). The stems of antennals III to V are yellow, although IV and V have a dark basal ring.

Holotype ♀. NICARAGUA : Chontales (*Jansen*).

Holotype ♀ of *assimilis*. NICARAGUA : Chontales (*Jansen*).

Holotype ♂ of *distinctus*. NICARAGUA : Chontales (*Jansen*).

Elaphrothrips angustatus (Bagnall)

(Text-fig. 31)

Idolothrips angustatus Bagnall, 1910a : 380–382.

Bagnall's records of *brevicornis* from Trinidad (1915) and St. Vincent (1917) are here regarded as mis-identifications of *angustatus*. The anterior reticles of the pelta are equiangular but the reticles on the posterior half are transversely elongate. The postocular setae of the male are small although these setae are long in the female.

Holotype ♂. VENEZUELA : Los Trincheras, 11.xii.1891 (*Meinert*).

Elaphrothrips antennalis Bagnall

Elaphrothrips (*Idolothrips*) *antennalis* Bagnall, 1921d : 398.

The fore tarsus of this species bears a broad-based tooth rather similar to that found in the minor males of *procer* Schmutz.

Holotype ♂. JAPAN : Kobe, on grass, 11.vii.1916 (*J. E. A. Lewis*).

Elaphrothrips bagnallianus Priesner

Elaphrothrips bagnallianus Priesner, 1952 : 863. Nomen novum for *clarispinis* of Bagnall.
Elaphrothrips clarispinis Bagnall, 1935a : 134–135, nec *clarispinis* Priesner, 1935 : 247.

Holotype ♂. [ZAMBIA] : Kipushi, Congo Border, in dry dead leaves, 9.xi.1928 (*H. S. Evans*).

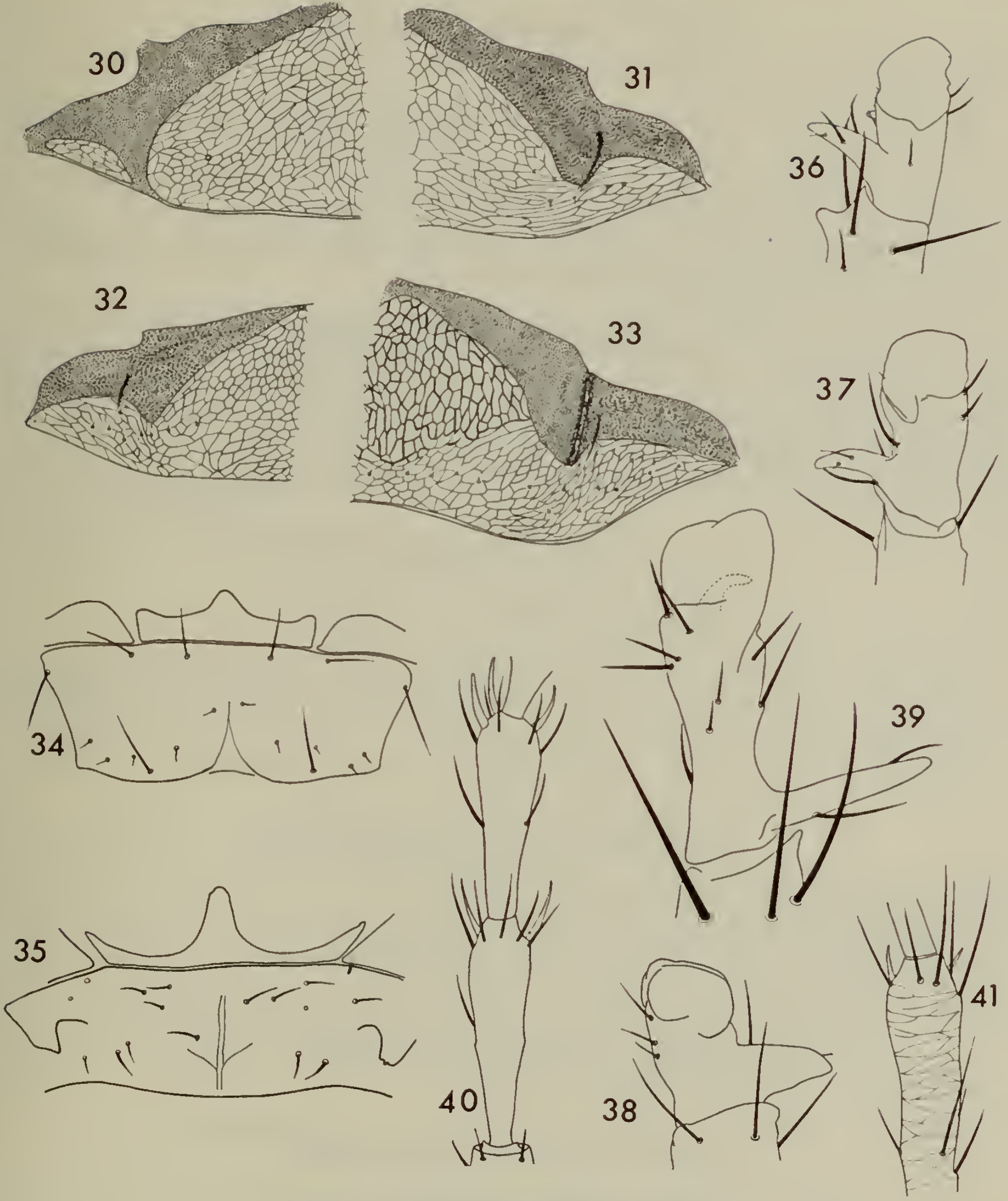
Elaphrothrips brachypes Bagnall

Elaphrothrips brachypes Bagnall, 1934b : 495–497.
Elaphrothrips jeanneli Bagnall, 1935a : 140–142. **Syn. n.**

In this species the postocular and interocellar setae are colourless, and the pronotal and femoral setae are shaded yellow. The extreme base of the femora and tibiae are yellow, and the hind tibiae are light brown in the distal half.

Holotype ♂. EAST AFRICA : without data.

Holotype ♀ of *jeanneli*. [KENYA] : Molo, Mau Escarpment, 7,000 ft., 2.xii.1911 (*Alluaud & Jeannel*).



FIGS. 30–41. Figs. 30–33. Half of pelta of *Elaphrothrips* species (first abdominal tergite) : 30, *E. crassiceps*, holotype female. 31, *E. angustatus*, holotype male. 32, *E. brevicornis*, holotype female. 33, *E. foveicollis*. Figs. 34 & 35. Mesosternum of *Diceratothrips* species : 34, *D. armatus*. 35, *D. brevis*. Figs. 36—39. Fore tarsus of *Elaphrothrips* species males : 36, *E. longiceps*. 37 & 38, *E. procer* (37, *approximatus*, 38, *proximus*). 39, *E. greeni* (*bouvieri* holotype). Fig. 40. *Diceratothrips difficilis*, antennals III & IV of holotype female. Fig. 41. *Anactinothrips meinerti*, apex of antennal III of holotype female.

Elaphrothrips brachyurus Bagnall

Elaphrothrips brachyurus Bagnall, 1926d : 555.

Holotype ♀. South Africa : Pondoland, Port St. John, iv.1923 (*R. E. Turner*).

Elaphrothrips breviceps (Bagnall)

Dicaiothrips breviceps Bagnall, 1921d : 399–400.
Elaphrothrips breviceps (Bagnall) Bagnall, 1935a : 143–145.

The interocellar setae are colourless in this species although the epimeral setae are shaded and the lateral head setae dark. On tergite IX of the unique holotype setae B_1 are missing, but B_3 are apparently only 0·7 as long as B_2. The antennae are not known, but the lateral lobes of the pelta are very slender. A second species is mounted on the same slide as the holotype.

Holotype ♀. [Kenya] : Nairobi (Wa-Kikuyu et Masai), 1904 (*Alluaud*).

Elaphrothrips brevicornis (Bagnall)

(Text-fig. 32)

Dicaiothrips brevicornis Bagnall, 1910a : 379–380.

Bagnall's records of this species from Trinidad and St. Vincent are referred to under *angustatus*.

Holotype ♀. Venezuela : Los Trincheras, 12.xii.1891 (*Meinert*).

Elaphrothrips brunneipennis Bagnall

Elaphrothrips brunneipennis Bagnall, 1935a : 130–132.
Elaphrothrips brunneipennis Bagnall ; Priesner, 1952 : 859.

LECTOTYPE ♀. San Thomé : 6.xi.1932 (*W. H. T. Tams*).

Elaphrothrips conicurus Bagnall

Elaphrothrips conicurus Bagnall, 1934b : 497–498.

Holotype ♀. Venezuela : Sarare, 1899 (*F. Geay*). Paris Museum.

Elaphrothrips coronatus Bagnall

Elaphrothrips coronatus Bagnall, 1934c : 630–632.

This species can apparently be distinguished from the other Indo-Malayan species by the produced part of the head being narrowed apically, and antennals III to V with very pale brown shadings apically.

Holotype ♀. Ceylon : Peradeniya, on banana, 2.vi.1913 (*A. Rutherford*).

Elaphrothrips crassiceps (Bagnall)

(Text-fig. 30)

Dicaiothrips crassiceps Bagnall, 1921d : 399.
Elaphrothrips crassiceps (Bagnall) ; Priesner, 1934 : 197.

Apart from the short broad head, this species may also be recognized by the fact that the lateral lobes of the pelta are quite separate from the large median plate.

Holotype ♀. BURMA : Myawadli, 900 ft., 24–26.xi.1911 (*F. H. Gravely*).

Elaphrothrips denticollis (Bagnall)

Dicaiothrips denticollis Bagnall, 1909j : 527.

This species is known from a single female, but comparison with the description of *mucronatus* Priesner, 1935 : 167–168 suggests that these two forms may eventually be shown to be identical.

Holotype ♀. INDONESIA : Isle of Nias (*K. Jordan*).

Elaphrothrips distans Bagnall

Elaphrothrips distans Bagnall, 1935a : 132–134.
Elaphrothrips distans Bagnall ; Priesner, 1952 : 859.

Holotype ♀. TANGANYIKA : Morogoro, iii.1925 (*A. H. Ritchie*).

Elaphrothrips femoralis (Bagnall)

Klinothrips femoralis Bagnall, 1918a : 218–219.
Elaphrothrips (*Klinothrips*) *femoralis* (Bagnall) Priesner, 1952 : 846–849.

The specimen on which this species was described (in spirit) has not been located in the British Museum (Natural History). The published data were; GHANA : Aburi, Cacao leaves, 12.ix.1915 (*W. H. Patterson*). Priesner has redescribed the species from two males from the Ivory Coast and one of these is deposited in the Paris Museum. The basal wing setae of this specimen are dark as in *gaboniensis*.

Elaphrothrips foveicollis (Bagnall)

(Text-fig. 33)

Idolothrips foveicollis Bagnall, 1908c : 214–215.
Dicaiothrips championi Bagnall, 1910a : 375. **Syn. n.**
Dicaiothrips grandis Bagnall, 1910a : 373–374. **Syn. n.**

This species belongs in the *laevicollis* group in which the anterior reticles of the pelta are distinguished from those at the posterior by their thicker margins, and the postocular setae of the males are negatively heterogonous (see Hood, 1955 : 54).

The holotype of *championi* is a female, not a male as originally stated, the internal rod in abdominal segment IX is visible, the fore tarsal claw is short and broad, and the postocular setae are long. The holotype of *grandis* is here regarded as a major male of *foveicollis*.

LECTOTYPE ♀. [GUATEMALA : 14° 44′ N. 91° 27′ W] Cerro Zunil, 4–5,000 ft., (*Champion*).

Holotype ♀ of *championi*. [GUATEMALA : 14° 44′ N. 91° 27′ W] : Cerro Zunil, 4–5,000 ft., (*Champion*).

Holotype ♂ of *grandis*. [GUATEMALA : 14° 44′ N. 91° 27′ W] : Cerro Zunil, 4–5,000 ft., (*Champion*).

Elaphrothrips gaboniensis Bagnall

Elaphrothrips gaboniensis Bagnall, 1936 ; 224–225.
Elaphrothrips gaboniensis Bagnall ; Priesner, 1952 : 860.

The specimen recorded by Bagnall (1935a : 140) from Ibadan, NIGERIA has the third basal wing seta very darkly shaded. The epimeral setae are colourless, the femoral setae weakly shaded, and the head setae dark.

Holotype ♀. CONGO : Libreville (*J. Chalot*). Paris Museum.

Elaphrothrips graveleyi Bagnall

Elaphrothrips graveleyi Bagnall, 1934c : 628–630.

Holotype ♀. INDIA : Kurseong, 4,700 ft., 26.iii.1910 (*F. H. Gravely*).

Elaphrothrips greeni (Bagnall)

(Text-fig. 39)

Dicaiothrips greeni Bagnall, 1914c (March) : 289–290.
Dicaiothrips bouvieri Vuillet, 1914 (April) : 276–277. **Syn. n.**

The above synonymy is based on a comparison of the type and paratype of *bouvieri* with a third specimen from the same locality and the remains of the holotype of *greeni*. The basal stems of antennals IV and V apparently vary in colour from brownish yellow to pale brown (cf. Priesner 1934 : 195), and as in many other species, the sickle-shaped seta on the fore femur varies in degree of development. The fore tarsal tooth is long and slender, arising basally, and the hind tibia is yellowish in the distal half.

Holotype ♂. CEYLON : Peradeniya, on decayed *Phaseolus* pods (*E. E. Green*).

Holotype ♂ of *bouvieri*. INDIA : Coonoor, Nilgiri Hills, 6,000 ft., 14–31.vii.1901 (*Maindron*).

Elaphrothrips laevicollis (Bagnall)

Dicaiothrips laevicollis Bagnall, 1910a : 375–376.
Elaphrothrips laevicollis (Bagnall) ; Hood, 1955 : 54.

The two syntypes are not in the British Museum nor the University Museum, Copenhagen. The original data were ; VENEZUELA : Los Tejes, 20.ix.1891 (*Meinert*). One male identified as this species by Bagnall from Trinidad has been examined and this is very close to *foveicollis*. Hood gives an account of the heterogony exhibited by the males.

Elaphrothrips laticeps Bagnall

Elaphrothrips laticeps Bagnall, 1935a : 142–143.
Elaphrothrips laticeps Bagnall ; Priesner, 1952 : 862.

The unique holotype is damaged, but antennal III is clear yellow and IV weakly shaded apically. This should be compared with *uniformis* Buffa in which both III and IV are yellow.

Holotype ♀. TANGANYIKA : Moschi, 1905.

Elaphrothrips longiceps (Bagnall)

(Text-fig. 36)

Idolothrips longiceps Bagnall, 1908c : 211–213.

The unique holotype has a well developed, dark sickle-shaped seta on the fore femur. The inner apical margin of the fore tibia bears a distinct tooth, and the fore tarsus is rather short with a broad-based, claw-shaped tooth.

Holotype ♂. [MEXICO] : Orizaba, xii.1857 (*H.S. & F.D.G.*).

Elaphrothrips madagascariensis Bagnall

Elaphrothrips madagascariensis Bagnall, 1935a : 138–140.
Elaphrothrips madagascariensis Bagnall ; Priesner, 1952 : 865.

Holotype ♀. MADAGASCAR : Ambalamadakana, 1901 (*Alluaud*). Paris Museum.

Elaphrothrips mahensis (Bagnall)

Dicaiothrips mahensis Bagnall, 1921b : 283–284.
Dicaiothrips rex Bagnall, 1921b : 281–283. **Syn. n.**
Dicaiothrips hystrix Bagnall, 1921b : 284–286. **Syn. n.**

Although the name *rex* has page priority, the present author as first reviser (International Code, 1961 : 24A) uses *mahensis*, because the holotype bearing that name is in good condition whereas the holotype of *rex* is crushed, macerated and lacks antennae. These two forms are here regarded as the major males of the species and *hystrix* represents the females. The males which Bagnall labelled *hystrix* may be minor males of this species or they may represent a distinct species. The colour of the stem of antennal V varies from yellow to light brown, but the extreme apex of III and base of IV are black, contrasting with the surrounding yellow colour. The basal wing setae are light brown.

Holotype ♂. SEYCHELLES : Mahé [near Morne Blanc, x–xi.1908 (*H. Scott*)].

Holotype ♂ of *rex*. SEYCHELLES : Silhouette [Mare aux Cochons, 6.ix.1908 (*H. Scott*)].

Holotype ♀ of *hystrix*. SEYCHELLES : Silhouette [Mare aux Cochons, 6.ix.1908 (*H. Scott*)].

Elaphrothrips malayensis (Bagnall)

Dicaiothrips malayensis Bagnall, 1909j : 525–526.

Three males remain in the Bagnall collection, and in one of these there is a well developed, fore femoral, sickle-shaped seta (cf. Priesner, 1934 : 195). From this specimen it appears that *bruneitarsis* Schmutz may well prove to be a synonym, particularly as Priesner (1935 : 64) has recorded that species from Indonesia. However *bruneitarsis* of Bagnall (1934c : 630) is not the same species.

Holotype ♂. INDONESIA : Isle of Nias (*Jordan*).

Elaphrothrips nitidus (Bagnall)

Dicaiothrips nitidus Bagnall, 1910a : 372–373.

The posterior reticles of the pelta are smaller than the anterior reticles. Unlike *foveicollis* the postocular setae are well developed in this male specimen.

Holotype ♂. BRAZIL : Rio de Janeiro, near La Tijuca, 1901 (*E. R. Wagner*).

Elaphrothrips priesneri (Bagnall)

Dicaiothrips priesneri Bagnall, 1926d : 554–555. Nomen novum for *D. breviceps* Priesner, 1921b nec Bagnall, 1921d.

This species was described by Priesner from Paraguay.

Elaphrothrips procer (Schmutz)

(Text-figs. 37 & 38)

Dicaiothrips procer Schmutz, 1913 : 1063–1065.
Dicaiothrips proximus Bagnall, 1914c : 289. **Syn. n.**
Elaphrothrips achaetus Bagnall, 1934c : 633–634. **Syn. n.**
Elaphrothrips approximatus Bagnall, 1934c : 635–636. **Syn. n.**
Elaphrothrips procer (Schmutz) Priesner, 1935 : 60–61.

This synonymy is based on a comparison of Bagnall's type specimens with Priesner's redescription of *procer*. The fore tarsal tooth is quite distinctive in the major males, although in the minor males (*approximatus*) the tooth is weaker and lacks the tubercle on the internal margin. As is not uncommon in females of *Elaphrothrips*, the type specimen of *achaetus* has no major outstanding setae on antennals III and IV.

Holotype ♂ of *proximus*. CEYLON : Peradeniya, *Crotalaria* pods, xi.1912 (*E. E. Green*).

Holotype ♀ of *achaetus*. CEYLON : Peradeniya, *Crotalaria* .pods, xi.1912 (*E. E. Green*).

Holotype ♂ of *approximatus*. CEYLON : Peradeniya, *Hevea* dead leaves, 6.v.1914 (*A. Rutherford*).

Elaphrothrips propinquus (Bagnall)

Dicaiothrips propinquus Bagnall, 1910a : 377–378.

The unique male on which Bagnall described this species is not in either the British Museum (Natural History) nor the University Museum, Copenhagen. The published data were ; VENEZUELA : Los Trincheras, 11.xii.1891 (*Meinert*). This may represent the malé of *brevicornis*.

Elaphrothrips seychellensis (Bagnall)

Dicaiothrips seychellensis Bagnall, 1921b : 280–281.
Elaphrothrips seychellensis (Bagnall) Priesner, 1934 : 196.

Holotype ♀. SEYCHELLES : Mahé [above Port Glaud, 500–1,000 ft., 5.xi.1908 (*H. Scott*)].

Elaphrothrips spiniceps Bagnall

Elaphrothrips spiniceps Bagnall, 1932e : 514–515.

In view of the absence of antennae from the unique holotype, this species cannot be placed in Priesner's key (1934).

Holotype ♂. INDIA : Sikkim, Gangtok (*Bailey*).

Elaphrothrips stenocephalus (Bagnall)

Dicaiothrips stenocephalus Bagnall, 1914c : 288–289.
Elaphrothrips nigrospinosus Bagnall, 1932e : 515–516. **Syn. n.**
Elaphrothrips atrispinis Bagnall, 1935a : 135–137. **Syn. n.**
Elaphrothrips variispinis Bagnall, 1935a : 137–138. **Syn. n.**

The stem of antennal segments IV and V varies in colour from yellow to light brown, although IV always has a conspicuous narrow dark brown ring at the extreme base. The major head, pronotal and femoral setae are dark, although the lateral abdominal setae and B_1 on tergite IX (not B_2 or B_3) are hyaline. The first pair of cheek setae have pointed apices and the outer margins of the fore femora have a series of stout thorn-like setae. The wings are narrow and pale although the cilia are dark. The basal wing setae are hyaline or weakly shaded (cf. *gaboniensis*).

Holotype ♂. [TANGANYIKA] : Moschi, 15.viii.1905 (*Katona*).

Holotype ♂ of *nigrospinosus*. TANGANYIKA : Morogoro, iii.1925 (*A. H. Ritchie*).

Holotype ♂ of *atrispinis*. EAST AFRICA : Nairobi, 1905 [this may be Engare Nairobi, between Moschi and Arusha in Tanganyika].

Holotype ♀ of *variispinis*. TANGANYIKA : Arusha, Rasha-rasha, on Onion, viii.1926 (*A. H. Ritchie*).

Euoplothrips buxtoni Bagnall

Euoplothrips buxtoni Bagnall, 1928b : 68–71.
Euoplothrips incognitus Bagnall, 1928b : 71–72. **Syn. n.**

Bagnall described *buxtoni* from two females, and *incognitus* from a female and two males, but the differences between the two forms are here interpreted as being due to size variation. The specimens labelled *buxtoni* are much larger than those labelled *incognitus* but they were all collected together and they all have very similar postocular and basal wing setae. *E. buxtoni* may be separated from the related *uncinatus* as follows:

1 Postocular setae acute, shorter than half of eye length ; basal wing setae slightly expanded, the second seta about 1·5 times as long as the distance between the second and third seta . . . . ***uncinatus***
– Postocular setae blunt, about as long as eye ; basal wing setae softly rounded, the second seta about 2·5 (2·7 in ♀, 2·3 in ♂) times as long as the distance between the second and third seta . . . . ***buxtoni***

LECTOTYPE ♀. TONGA : Nukualop, leaves of *Ficus*, 20.ii.1925 (*Buxton & Hopkins*).

LECTOTYPE ♀ of *incognitus*. TONGA : Nukualop, leaves of *Ficus*, 20.ii.1925 (*Buxton & Hopkins*).

Euoplothrips uncinatus Bagnall

Euoplothrips uncinatus Bagnall, 1928b : 73–74.

This species was described from one male and one female and characters for separating these from *buxtoni* are given above.

LECTOTYPE ♀. SAMOA : Upolu Is., Apia, leaves of *Ficus*, 25.v.1925 (*Buxton & Hopkins*).

EUPATHITHRIPS Bagnall

Eupathithrips Bagnall, 1908c : 203. Type-species *E. dentipes*, by monotypy.
Eupathithrips Bagnall ; Stannard, 1957 : 43–44.

This genus is similar to *Acanthothrips* as pointed out by Stannard. The praepectus is absent, there are three subapical sense cones on antennal III and the abdominal tergites bear more than two pairs of wing retaining setae.

Eupathithrips affinis Bagnall

Eupathithrips affinis Bagnall, 1915d : 501.

The unique holotype is not available for study as the mountant has turned black.

Holotype ♂. TRINIDAD : Tucuche, on epiphytic Bromeliad, 20.iii.1912 (*H. Scott*).

Eupathithrips dentipes Bagnall

Eupathithrips dentipes Bagnall, 1908c : 204–205.

Holotype ♀. GUATEMALA : Salle Coll., without further data.

EURHYNCHOTHRIPS Bagnall

Eurhynchothrips Bagnall, 1918a : 213–214. Type-species *E. convergens*, by monotypy.

Head broad ; antennae eight-segmented, one sense cone on III and three on IV ; maxillary stylets slender, close together in middle of head with stout maxillary bridge ; mouth cone long and pointed. Praepectus absent, mesopraesternum often degenerate. Fore tarsus unarmed ; fore wings with accessory cilia. Pelta broadly triangular ; tube not long ; major setae expanded at apices.

Mimothrips Priesner, proposed as a subgenus of *Eurhynchothrips*, is here regarded as a full genus (q.v.).

Eurhynchothrips convergens Bagnall

(Text-figs. 29 & 70)

Eurhynchothrips convergens Bagnall, 1918a : 214–215.

The original description states that this species was based on males, but the holotype and six paratypes in the British Museum are all females. Both *convergens* and *flavicornis* have two pairs of epimeral setae, but in *convergens* the median part of the metanotum is without sculpture and the median setae are broadly expanded, whereas in *flavicornis* the metanotum is striate and the median setae are acute apically.

Holotype ♀. GHANA : Aburi, Cola shoots and buds, 5.xi.1915 (*W. H. Patterson*).

Eurhynchothrips flavicornis Bagnall

Eurhynchothrips flavicornis Bagnall, 1926d : 550–551.

The structure of the metanotum and its setae are referred to under *convergens*. In *flavicornis* the antennal sensoria are short and fine, whereas in *convergens* they are very broad and almost half the length of the segments on antennals III and IV. Seta B_2 on the ninth abdominal segment of the male is about half as long as B_1.

Holotype ♂. SIERRA LEONE : Falaba, in stem gall of *Micragyne macrophylla*, 6.ii.1925 (*E. Hargreaves*).

Eurhynchothrips messuicola (Bagnall) **comb. n.**

Gynaikothrips messuicola Bagnall, 1929e : 602–603.
Gynaikothrips sodalis Bagnall, 1929e : 603–604. **Syn. n.**

The tube varies in length in the three available males of *messuicola* from 134µ to 166µ. The tube of the *sodalis* holotype is 129µ. Contrary to the description, antennal V is brown in the distal third and IV is shaded distally to a variable extent (never ' clear yellow '). The type of *sodalis* is therefore regarded as a small form of *messuicola*. This species is similar to *Eurhynchothrips ordinarius* Hood (cf. Ananthakrishnan, 1964 : 44). The maxillary stylets are close together in the middle of the head and there is a stout and short maxillary bridge, however the mouth cone of *messuicola* is short. These two species differ from the African species referred to above in having only one pair of major epimeral setae.

LECTOTYPE ♂. MALAYA : *Messua ferrea* (*J. Brander*).

Holotype ♂ of *sodalis*. MALAYA : *Messua ferrea* (*J. Brander*).

EURYNOTHRIPS Bagnall

Eurynothrips Bagnall, 1908c : 199. Type-species *E. magnicollis*, by original designation.

Head parallel-sided, constricted medially in large specimens, vertex reticulate basally. Antennae eight-segmented, VIII constricted basally, pore of II in median part of segment. Maxillary stylets slender, wide apart low in head. Praepectus present, mesopraesternum degenerate. Pronotum very large, anterior setae about one third as long as the epimerals and postero-angulars. Mesonotum reticulate, median setae small. Pelta triangular ; male abdomen apparently without glandular areas or short B2 setae on segment IX. Fore tarsus with a large tooth, fore tibia produced at apex. Fore wings with numerous accessory cilia. Setae on tergite IX acute, remaining major setae with expanded rounded apices.

Eurynothrips magnicollis Bagnall

Eurynothrips magnicollis Bagnall, 1908c : 199–201.
Eurynothrips denticollis Bagnall, 1908c : 201. **Syn. n.**
Eurynothrips denticollis Bagnall ; Bagnall, 1932e : 509–510.

Bagnall described these forms from pinned specimens and these have now been mounted on slides. The two syntypes of *denticollis* include a male and a female, and of the three remaining syntypes of *magnicollis* two are females and one male. The cheek pouches, the ventral spine-like projection of the frons, and the lateral tooth on the pronotum which were used to distinguish the two forms are here interpreted as being due to overall size differences. Bagnall's record of this species from the Seychelles (1921b : 277) needs further substantiation as it could have arisen through an error in labelling.

LECTOTYPE ♀. AUSTRALIA : Queensland, Townsville, 16.vii.1902 (*F. P. Dodd*).

LECTOTYPE ♀ of *denticollis*. AUSTRALIA : Queensland, Townsville, 14.vii.1902 (*F. P. Dodd*).

Eurythrips modestus (Bagnall) **comb. n.**

Malacothrips modestus Bagnall, 1917 : 24–26.

This is a typical member of the genus *Eurythrips* as defined by Stannard (1957). The praepectus is well developed and the pelta is broadly semicircular. The lateral abdominal setae of segments II to VI and VIII have expanded apices, but the extreme lateral pair on VII are finely acute and the median lateral pair are slightly flattened.

Holotype ♀. St. Vincent : (*H. H. Smith*).

Fulgorothrips breviceps (Bagnall)

Phoxothrips breviceps Bagnall, 1914f : 380–381.
Fulgorothrips breviceps (Bagnall) Ananthakrishnan, 1964 : 96.

The unique holotype has a well developed praepectus, broad pelta, and two pairs of wing retaining setae on each tergite.

Holotype ♂. India : Simla, 7,000 ft., 7.v.1910 (*Annandale*).

GIGANTOTHRIPS Zimmermann

Gigantothrips Zimmermann, 1900 : 18. Type-species *G. elegans* Zimm., by monotypy.
Cercothrips Hood, 1919a : 73–74. Type-species *Acanthinothrips nigrodentatus* Karny, by monotypy. **Syn. n.**
Panurothrips Bagnall, 1908c : 208. Type-species *P. gracilis* (= *elegans*), by monotypy.
Cercothrips Hood ; Priesner, 1937a : 134.

The above synonymy is based on a comparison of type material of the species concerned with several other members of the genus. The chaetotaxy of the anterior margin of the pronotum is very different in *elegans* and *nigrodentatus*, but in *marshalli* Pr. for example the antero-angular setae are reduced and there is more than one seta along the anterior margin of the pronotum. The ocellar cone and lateral abdominal setae are similarly variable. The major setae on tergite IX are acute in *elegans* and *caudatus*, but the latter species is related to the other African species treated below. The genus may be defined as follows:

Head long, 1·5 times as long as wide or longer, weakly projecting in front of eyes ; ocelli sometimes raised on a cone-shaped projection ; no elongate postocular setae, one or two pairs of short stout setae on vertex ; cheeks with several pairs of setae, these frequently stout ; eyes large, mouth cone broadly rounded, maxillary stylets slender, close together, low in head. Antennae eight-segmented, VII and VIII broadly jointed ; one sense cone on III, four on IV although the dorsal one is barely one third as long as the other three sense cones. Pronotal major setae when present short and stout, midlaterals distant from epimeral sutures ; epimeral sutures complete ; praepectus absent, mesopraesternum very well developed. Metanotum reticulate, longitudinally in anterior half. Fore tarsus with a tooth in both sexes ; fore wing broad with numerous accessory cilia, basal setae never elongate. Pelta small, triangular, reticulate ; tergites with eight or more pairs of accessory wing retaining setae in addition to at least two pairs of sigmoid setae ; posterolateral tergal setae short and stout ; tube long, reticulate with weak decumbent hairs. Ten nominal species placed in this genus have not been examined by the present author, the following key being based on material in the British Museum (Natural History) ;

1 Pronotum with no enlarged major setae developed . . . . . ***caudatus***
– At least epimeral setae well developed 2
2 Postero-angular pronotal setae stout, at least half as long as epimerals 3
– Postero-angular pronotal setae small, much smaller than epimerals . . . 5
3 Tube more than 1·5 times as long as head, usually between 1·6 and 2·0 ; B1 setae on tergite IX short, about 0·1 times as long as tube . . . . . ***marshalli***
– Tube shorter, about 1·2 to 1·4 times as long as the head 4
4 B1 setae on tergites IX 0·25 to 0·35 as long as tube . . . . . ***vuilleti***
– B1 setae on tergite IX 0·15 to 0·20 as long as tube . . . . . ***micrurus***
5 Major pronotal setae very dark ; African species. 6
– Major pronotal setae pale, hyaline ; Oriental species 7
6 Reticles of metanotal sculpture between the median setae narrow, much narrower than posterior metanotal reticulations (Text–fig. 67) ; B1 setae on tergite IX about 0·1 times as long as tube . . . . ***turneri***
– Anterior reticles of metanotum linear but almost as broad as posterior reticles (Text–fig. 66) ; B1 setae on tergite IX about 0·2 times as long as tube . . ***modestus***
7 Anterior margin of pronotum with about eight pairs of short setae, antero-angulars not enlarged. . . . . ***elegans***
– Antero-angular pronotal setae almost as stout as epimerals, anterior margin with only four pairs of setae 8
8 Anterior part of mesonotum reticulate or with broadly spaced striations ; antero-angular and midlateral setae closer together than their length . . . ***tibialis***
– Anterior part of mesonotum more closely striate (Text–fig. 65) ; antero-angular and midlateral pronotal setae further apart than their length . . . ***nigrodentatus***

Gigantothrips caudatus (Bagnall)

Panurothrips caudatus Bagnall, 1910b : 427–428.
Gigantothrips caudatus (Bagnall) ; Faure, 1953 : 212–216.

Contrary to many species in this genus the tube setae of *caudatus* are not decumbent but stand out at an angle of about forty five degrees. Moulton's record of *caudatus* from Pondoland (1930b : 416) is a mis-identification of *turneri*.

Holotype ♀. SOUTH AFRICA : Cape Province, Knysna, on *Curtisia fraginea* (*E. J. O'Connor*).

Gigantothrips elegans (Zimmermann)

Gigantothrips elegans Zimmermann, 1900 : 18–19.
Panurothrips gracilis Bagnall, 1908c : 208–210.
Gigantothrips crawfordi Hood, 1919a : 71–73. **Syn. n.**

A paratype of *crawfordi* from the Philippines has been compared with the type specimens of *gracilis* and material of *elegans* from Java and India.

Holotype ♀ of *gracilis*. THAILAND : Bangkok (*H. Hillman*). BM 1899–20.

Gigantothrips marshalli Bagnall

Gigantothrips marshalli Bagnall, 1926d : 560.
Idolothrips niger Moulton, 1928a : 247–248. **Syn. n.**
Gigantothrips fumipennis Bagnall, 1934b : 493–494. **Syn. n.**

Type material of *afer* Priesner from Sudan has not been studied, but specimens bearing this name from Uganda and Sierra Leone are apparently identical with *marshalli*. Moulton described *niger* from a unique specimen,. probably a female, which is too opaque to study in detail. *G. fumipennis* was distinguished from *turneri* on account of the shaded wings, but specimens of *marshalli* from Akure, Nigeria on *Ficus elastica* have shaded fore wings, although this is not apparent in the type specimens, which have been macerated in caustic alkali.

Holotype ♀. NIGERIA : Ibadan, 1926 (*O. B. Lean*).

Holotype ?♀ of *niger*. ETHIOPIA : Djem-Djem Forest, 21.ix.1926 (*H. Scott*).

Holotype ♀ of *fumipennis*. TANGANYIKA : without data (*W. A. Lambourn*).

Gigantothrips micrurus Bagnall

Gigantothrips micrurus Bagnall, 1936 : 223–224.

Only two specimens of this species have been studied and these could be interpreted as a variety of *marshalli* with a short tube. The setae on tergite IX are stout as in *marshalli* not slender as *vuilleti*.

Holotype ♂. DAHOMEY : Kotonou, 4.xi.1908 (*R. Blanchard*). Paris Museum. The allotype female is in the British Museum (Natural History).

Gigantothrips tibialis Bagnall
(Text-fig. 64)

Gigantothrips tibialis Bagnall, 1921c : 364–365.

This species is very close to *nigrodentatus* Karny from Java. According to Ananthakrishnan (1964 : 36) it is very common in India.

LECTOTYPE ♀. CEYLON (*E. E. Green* 82).

Gigantothrips turneri Bagnall
(Text-fig. 67)

Gigantothrips turneri Bagnall, 1926d : 559–560.

Although placed near the Uganda species *modestus* Priesner in the above key, *turneri* is closely related to *marshalli* in the metanotal sculpture and stout short setae on tergite IX.

Holotype ♀. SOUTH AFRICA : Pondoland, Port St. John, 1–14.v.1923 (*R. E. Turner*).

Gigantothrips vuilleti Bagnall

Gigantothrips vuilleti Bagnall, 1934b : 492–493.

Although similar to *marshalli* in its sculpture, *vuilleti* is quite distinctive in having long, slender, rather pale setae on tergite IX. The species is not in the Paris Museum collection but there are three females and three males labelled as paratypes in the British Museum.

Paratypes ♂♂ and ♀♀. MALI REPUBLIC : Koulikoro, on *Ficus gnaphalocarpa*, iii.1913 (*J. Vuillet*).

Gynaikothrips australis Bagnall

Gynaikothrips australis Bagnall, 1929h : 187–188.

There are two pairs of postocular setae in this species, stout and dark with flattened apices. The epimeral and postero-angular pronotal setae are hyaline and almost as long as the pronotum.

Syntypes ♂ & ♀. AUSTRALIA : New South Wales, Gosford, curling leaves of *Ficus macrophylla*, 13.vi.1902 (*W. W. Froggatt*).

Gynaikothrips hopkinsi Bagnall

Gynaikothrips hopkinsi Bagnall, 1928b : 66–67.

LECTOTYPE ♂. SAMOA : Upolu Is., Apia, on *Ficus* leaves, 25.v.1925 (*Buxton & Hopkins*).

Gynaikothrips hystrix Bagnall

Gynaikothrips hystrix Bagnall, 1928b : 64–66.

This species is very close to *hopkinsi*. They both have two pairs of very long acute postocular setae, but *hystrix* is distinguished by the presence of two pairs of subequal epimeral setae and the long postocellars which reach to antennal II.

LECTOTYPE ♂. TONGA : Nukualop, on *Ficus* leaves, 20.ii.1925 (*Buxton & Hopkins*).

Gynaikothrips karnyi Bagnall

Gynaikothrips karnyi Bagnall, 1914b : 28–29.
Gynaikothrips karnyi Bagnall ; Ananthakrishnan, 1964 : 46.

Holotype ♀. CEYLON : Peradeniya, marginal leaf galls of *Piper nigrum*, 21.vii. 1913 (*A. Rutherford*).

Gynaikothrips ficorum (Marchal)

Phloeothrips ficorum Marchal, 1908 : 252.
Leptothrips flavicornis Bagnall, 1909j : 528–529. **Syn. n.**
Gynaikothrips ficorum (Marchal) ; Canizo, 1945 : 123–156.

Contrary to Bagnall's statement (1916b : 409) *flavicornis* is not a synonym of *uzeli* Zimmermann, a species found only in the Far East.

Syntypes ♂ & ♀ of *flavicornis*. MADEIRA (*Meinert*).

Gynaikothrips scotti Bagnall

Gynaikothrips scotti Bagnall, 1921b : 273–274.

Holotype ♀. SEYCHELLES : Silhouette, ix.1908 (*H. Scott*).

Gynaikothrips uzeli (Zimmermann)

Mesothrips uzeli Zimmermann, 1900 : 12–14.
Phloeothrips longitubus Bagnall, 1909j : 534–535.
Gynaikothrips uzeli (Zimmermann) ; Canizo, 1945 : 123–156.

This can be distinguished from the widespread *ficorum* by the elongate postero-angular pronotal setae.

Syntypes ♂ & ♀♀ of *longitubus*. JAVA : Semarang, young top leaves of Waringin [*Ficus benjamina*] (*E. Jacobson*).

HAPLOTHRIPS Amyot & Serville

Haplothrips Amyot & Serville, 1843 : 640. Type-species, by monotypy, *Phloeothrips albipennis* Burmeister, 1839, a synonym of *Thrips aculeatus* Fabricius, 1803, in Priesner, 1928.
Haplothrips (*Trybomiella*) Bagnall, 1926d : 548. Type-species of subgenus *Anthothrips bagnalli* Trybom, 1910, by original designation.
Hapliothrips Bagnall, 1934e : 495–496. Type-species *H. globiceps*, by monotypy.
Haplothrips Amyot & Serville ; Priesner, 1950 & 1964.

Karnyothrips is treated here as a distinct genus, but *Xylaplothrips* is regarded as a synonym of *Haplothrips*. *Trybomiella* is not accepted in view of the demonstration that in *cottei* Vuillet the fore wing accessory cilia may be present or absent (O'Neill, 1960). The species of *Haplothrips* described by Bagnall and accepted as valid are here listed in Table II under four sections according to a classification proposed by Miss O'Neill (in litt. 1964). Section I includes Holarctic species, II includes many European species as well as the Indian *tenuipennis* and the (presumably) African *gowdeyi*, III includes African and Australian species, and IV includes species from Europe, Africa, Asia and Australia.

TABLE II

Bagnall's species of the genus *Haplothrips* or their senior synonyms (*silhouettensis* is not recognizable)

Section I

Antennal III with 1 sense cone Postocular setae acute	Antennal III with 2 sense cones Fore wing with accessory cilia	Antennal III with 2 sense cones Fore wing without accessory cilia	Antennal III with 1 sense cone Postocular setae not acute
aculeatus Fabricius	*eryngii*	*articulosus*	*apicalis*
pineticola	*fuliginosus* Schille	*dolichothripoides*	*globiceps*
	gowdeyi Franklin	*nigricornis*	*jordani*
	juncorum	*robustus*	*longipes*
	maltbaeki	*tertius*	*phyllireae*
	marrubiicola		*priesnerianus*
	microsetosus		*sorghi*
	propinquus		*sorghicola*
	quadraticeps		*victoriensis*
	reuteri Karny		
	senecionis		
	setiger Priesner		
	tenuipennis		

Haplothrips aculeatus (Fabricius)

Thrips aculeatus Fabricius, 1803 : 312.
Haplothrips cephalotes Bagnall, 1913j : 265–266.

Syntypes ♂♂ and ♀♀ of *cephalotes*. ENGLAND : Weston-on-the-Green, in sedge stacks, viii.1913 (*R.S.B.*).

Haplothrips apicalis (Bagnall)

Hindsiana apicalis Bagnall, 1915a : 323.

Pelikan (1963) in describing a new species *cingulatus*, referred *apicalis* to the subgenus *Trybomiella*. Both of these species have a single sense cone on antennal III however and are not closely related to *bagnalli* Trybom. The present author has not examined macropterous specimens of *apicalis*, but the three basal wing setae on the micropterous forms available all have expanded apices. The maxillary bridge is long and slender and all the prothoracic major setae are developed.

LECTOTYPE ♀. [INDIA : Almora, Kumaon, 5,500 ft., jungle plant, 4.vii.1911 (*O. Paiva*)].

Haplothrips articulosus Bagnall

(Text-fig. 42)

Haplothrips articulosus Bagnall, 1926d : 548–549.
Haplothrips trybomianus Priesner, 1927b : 70. **Syn. n.**
Haplothrips (*Trybomiella*) *derisor* Priesner, 1935b : 324. **Syn. n.**

The male and female syntypes of *trybomianus* (= *bagnalli* var. *pallicornis* Trybom, 1911) from Mombasa, Kenya have been compared with the type series of *derisor* from Sierra Leone and numerous specimens from Nigeria, Ghana, Tanganyika, Malawi and the Congo. Midlateral prothoracic setae are present as in *tertius* and these two species are very closely related. In *articulosus* the aedeagus tip is pincers-shaped whereas in *tertius* it is spoon-shaped. Both species are commonly found in flowers of Compositae.

Holotype ♀. TANGANYIKA : Morogoro, Sunflower blossom, 9.i.1925 (*A. H. Ritchie*).

Syntypes ♂ & ♀ of *trybomianus*. KENYA : Mombasa, scarlet *Acacia* flowers, 21.xii.1910 (*Lönnberg*). Riksmuseum, Stockholm.

Holotype ♀ of *derisor*. SIERRA LEONE : *Erigeron sumatrensis* leaves (*E. Hargreaves*).

Haplothrips dolichothripoides Bagnall

Haplothrips (*Trybomiella*) *dolichothripoides* Bagnall, 1933a : 315–317.

Priesner (1950 : 93) indicated that this species might be a synonym of *clarisetis* Priesner. However the unique male and female both have softly pointed postocular and third subbasal wing setae, whereas these setae have distinctly expanded apices in *clarisetis* females at least. The tip of the aedeagus is similar to that of *clarisetis* but much more strongly constricted subapically.

Holotype ♀. SUDAN : Wad Medani, on cotton seedlings, 17.ii.1932 (*W. P. L. Cameron*).

Haplothrips eryngii Bagnall

Haplothrips eryngii Bagnall, 1934e : 497–499.

Unfortunately this species is known only from females, and these probably represent either *leucanthemi* Schrank or *angusticornis* Priesner. The fore wings are pale and the colour of antennals IV and V varies from entirely brown to yellow basally. The type specimen is not in the Paris Museum or the British Museum (Natural History).

Paratypes ♀. FRANCE : Gers, Ornezan, *Eryngium campestre*, 17.viii.1913 (*Vuillet*).

Haplothrips fuliginosus (Schille)

Cryptothrips fuliginosa Schille, 1911 : 7–8.
Haplothrips (*Xylaplothrips*) *fuliginosus* (Schille) Priesner, 1928 : 572.
Haplothrips obscuripennis Bagnall, 1913j : 264–265.

The subgenus *Xylaplothrips* is distinguished by the presence of only two sense cones on antennal IV. In view of the comments by Faure (1956b : 336), when describing the South African species *callani*, it seems likely that the present subgenera of *Haplothrips* have little significance.

LECTOTYPE ♂ of *obscuripennis*. ENGLAND : Oxford, Hogley Bog, old bean sticks, ix.1913 (*R.S.B.*).

Haplothrips globiceps (Bagnall)

Haplothrips globiceps Bagnall, 1934e : 496–497.

The unique female upon which this species is based belongs in the *minutus* group but differs from the holotype of *flavitibia* Williams in having the apices of the major setae hyaline but not clearly expanded. The maxillary bridge is wide and the pronotal anterior marginal setae reduced.

Holotype ♀. TURKEY : Smyrna, *Vitis vinifera*, 25.vi.1913 (*M. Sureya*).

Haplothrips gowdeyi (Franklin)

Anthothrips gowdeyi Franklin, 1908 : 724.
Anthothrips usitatus Bagnall, 1910d : 695–696.
Haplothrips brevicollis Bagnall, 1913f : 297. **Syn. n.**
Haplothrips karnyi Bagnall, 1913f : 296–297. **Syn. n.**
Haplothrips mahensis Bagnall, 1921b : 267–268.

The specimens labelled as males in the original series of *usitatus* are actually females, and Bagnall's statement in describing *karnyi* that the setae on tergite IX are longer than in *usitatus* is not correct. The unique holotype of *karnyi* and the two syntypes of *brevicollis* differ from typical *gowdeyi* in having antennal VI yellow, but they resemble the common species in other respects, particularly in having the third subbasal wing setae expanded apically and about equal in length to the epimerals. In a recent collection of this species from Kenya the length of the third subbasal wing seta is variable, and the weak apical expansion of this seta has collapsed, in most cases with the result that these setae appear to be acute. This is an artefact caused by the Berlese Mountant but the other major setae were not affected.

Syntypes ♀ of *usitatus*. HAWAII : Kona, 2,000 ft., on Hilo grass, ix.1892 (*Perkins*).

Syntypes ♀ of *brevicollis*. [? KENYA : Kibos] Africa Orientale, Kibosho, 1903 (*Kittenberger*).

Holotype ♀ of *karnyi*. TANGANYIKA : Arusha, x–xi.1905.

Holotype ♀ of *mahensis*. SEYCHELLES : Mahé, 1908–09 (*H. Scott*).

Haplothrips jordani (Bagnall)

Zygothrips jordani Bagnall, 1909j : 530–531.
Haplothrips vernoniae var. *grandior* Priesner, 1933 : 361. **Syn. n.**

Although the original description refers to numerous specimens only a single male remains in the Bagnall collection. The above synonymy is based on a comparison of this male with a female syntype of *grandior*. The tip of the aedeagus in *vernoniae* is very similar to *jordani* but in the latter species antennal III is twice as long as wide and has several ring-like constrictions in the basal third. The epimeral setae are dark, and the third subbasal wing seta is softly pointed.

Holotype ♂. JAVA : Isle of Nias (*K. Jordan*).

Syntype ♀ of *grandior*. TAIWAN : Taihoku, *Cirsium japonicum*, 11.x.1921 (*Okuni*).

Haplothrips juncorum Bagnall

Haplothrips juncorum Bagnall, 1913g : 227–228.
Haplothrips junicola Bagnall, 1932a : 165. **Syn. n.**

This common European species is distinguished by the maxillary stylets, which almost meet in the middle of the head a little posterior to the narrow maxillary bridge. *H. quadraticeps* and *H. kilimandjarica* are rather similar in this character. *H. juncicola* was based on a single gynaecoid male with unusually dark antennae.

Syntypes ♀. ENGLAND : Yarnton, *Juncus*, vi.1913 (*R.S.B.*).

Holotype ♂ of *juncicola*. ENGLAND : Surrey, Oxshott, *Juncus*, 28.ix.1927 (*G. D. Morison*).

Haplothrips longipes Bagnall

(Text-fig. 44)

Haplothrips longipes Bagnall, 1926e : 654–656.

Only two specimens, a male and a female, are available of this species. It belongs near *minutus* Uzel along with *phyllireae*, *flavitibia* Williams and *corticinus* Priesner. The tip of the aedeagus is more widely expanded than in *phyllireae*.

LECTOTYPE ♂. SPAIN : St. Esteban, 23.vi.1912 (*Navás*).

Haplothrips maltbaeki Bagnall

(Text-fig. 47)

Haplothrips maltbaeki Bagnall, 1933a : 324–325.

This species is related to *leucanthemi* and *setiger*. The terminal wing cilia are weakly plumose as in *leucanthemi*, the anterior marginal and midlateral pronotal setae are no larger than the discal setae but the epimerals are about 60 to 80μ, the postero-angulars 50 to 60μ and the antero-angulars 30 to 40μ. The tip of the aedeagus is parallel-sided and no wider than the shaft.

LECTOTYPE ♂. FRANCE : Montlouis, 5,000 ft., *Cistus* sp., viii.1926 (*R.S.B.*).

Haplothrips marrubiicola Bagnall

Haplothrips marrubiicola Bagnall, 1932a : 163–164.

This species is known only from the original series. Bagnall's measurements of the female are overestimated, thus the postoculars are 80μ, postero-angulars 100μ, median setae on tergite IX 110μ and the tube 150μ. *H. graecus*, to which this species was compared, has no major setae on the anterior margin of the pronotum and has much shorter setae on tergite IX relative to the tube. With the exception of the postoculars the major setae are not truly acute, their apices being softly rounded. The most closely related species is apparently *verbasci* Osborn.

LECTOTYPE ♂. ENGLAND : Rye, *Marrubium vulgare*, 29.vi.1930 (*G. D. Morison*).

Haplothrips microsetosus Bagnall

Haplothrips microsetosus Bagnall, 1933a : 319.

The unique holotype of this species belongs in the *leucanthemi* group and probably represents *angusticornis* Priesner. The wings are paler than typical *leucanthemi* but the tube is 2·9 times as long as its maximum breadth and the terminal wing cilia are weakly plumose.

Holotype ♀. CZECHOSLOVAKIA : Vsetin, ix.1929 (*R.S.B.*).

Haplothrips nigricans Bagnall

Haplothrips nigricans Bagnall, 1934e : 499–500.
Haplothrips nigricans Bagnall ; Priesner, 1964 : 157.

The unique holotype female is not in either the Paris Museum or the British Museum (Natural History). The original collection data were ; FRANCE : Beaune, *Sambucus ebulus*, 1.vii.1913 (*A. Paillet*).

Haplothrips nigricornis (Bagnall)

Androthrips nigricornis Bagnall, 1910b : 425–426.
Haplothrips unicolor Bagnall, 1919 : 274–275.
Haplothrips nigricornis (Bagnall) ; Faure, 1955 : 208–218.

According to Faure this species differs from *bagnalli* in lacking major anteroangular and posteromarginal pronotal setae. This group needs further study in South Africa as the present author has examined a number of males with very similar chaetotaxy but in which the aedeagus is different from either *bagnalli* or *nigricornis*. These species are related to *clarisetis*, *dolichothripoides* and *robustus* in that they lack pronotal midlateral setae. The epimeral setae have expanded apices in the females but softly pointed apices in the males.

Syntypes ♂ & ♀♀. [SOUTH AFRICA : Cape Town, flowers of *Diplopappus*, *Europs*, *Olipterus and Sebaea*].

Syntypes ♂ and ♀ of *unicolor*. SOUTH AFRICA : Pirie, no other data.

Haplothrips phyllireae Bagnall

Haplothrips phyllireae Bagnall, 1933a : 329–330.

The anteromarginal pronotal setae vary from quite small to as long as the anteroangulars. The aedeagus is very similar to *minutus* as figured by Fabian (1938). The postocular seta is very weakly expanded apically, and the maxillary bridge is wide as in *longipes* and *globiceps*.

LECTOTYPE ♂. FRANCE : Hyères Plage, *Phyllirea*, ix.1927 (*R.S.B.*).

Haplothrips pineticola Bagnall

Haplothrips pineticola Bagnall, 1926e : 656.

This species is probably a synonym of *phyllophilus* Priesner, 1914. It can be distinguished from *aculeatus* by the absence of a fore tarsal tooth, and the presence of well developed pronotal anteromarginal setae.

LECTOTYPE ♀. FRANCE : Font Romeu, 5,500 ft., *Pinus*, viii.1926 (*R.S.B.*).

Haplothrips priesnerianus Bagnall

(Text-fig. 45)

Haplothrips priesnerianus Bagnall, 1933a : 327–328.
Haplothrips tolerabilis Priesner, 1936 : 96–97. **Syn. n.**
Haplothrips tolerabilis Priesner ; Faure, 1956a : 115–117.

The aedeagus and chaetotaxy of specimens determined as *tolerabilis* by J. C. Faure have been compared with the type specimens of *preisnerianus*. Some specimens in the British Museum (Natural History) collection determined by various authors as *ganglbaueri* Schmutz are also conspecific with *priesnerianus*, but the type specimens of Schmutz's species have not been seen by the present author. *H. tolerabilis* was described from Sudan and later recorded from Libya and Southern Sudan. The present author has examined specimens from rice and other Gramineae from the Solomon Islands, and also specimens from Gramineae and some dicotyledons in West Pakistan.

LECTOTYPE ♂. [INDIA : Allahabad, flowers of *Lantana* in jungle, 26.iii.1910 (*A. D. Imms*)], Reg. 209.

Haplothrips propinquus Bagnall

(Text-fig. 43)

Haplothrips propinquus Bagnall, 1933a : 325–326.

The unique male holotype of this species is mounted with the aedeagus well displayed. The expanded spoon-shaped tip of this structure is 20μ broad and about 40μ long, and the shaft is about 30μ by 10μ. The same species is present in the Bagnall collection from the Eastern Pyrenees labelled '*angusticornis* Priesner'. The present author has not examined type specimens of *angusticornis* but Fabian (1938) illustrates the aedeagus of that species as barely wider than the shaft. *H. angusticornis* of Morison (1949 : 99) is actually *propinquus*, and the true host plant is *Achillea millefolium*.

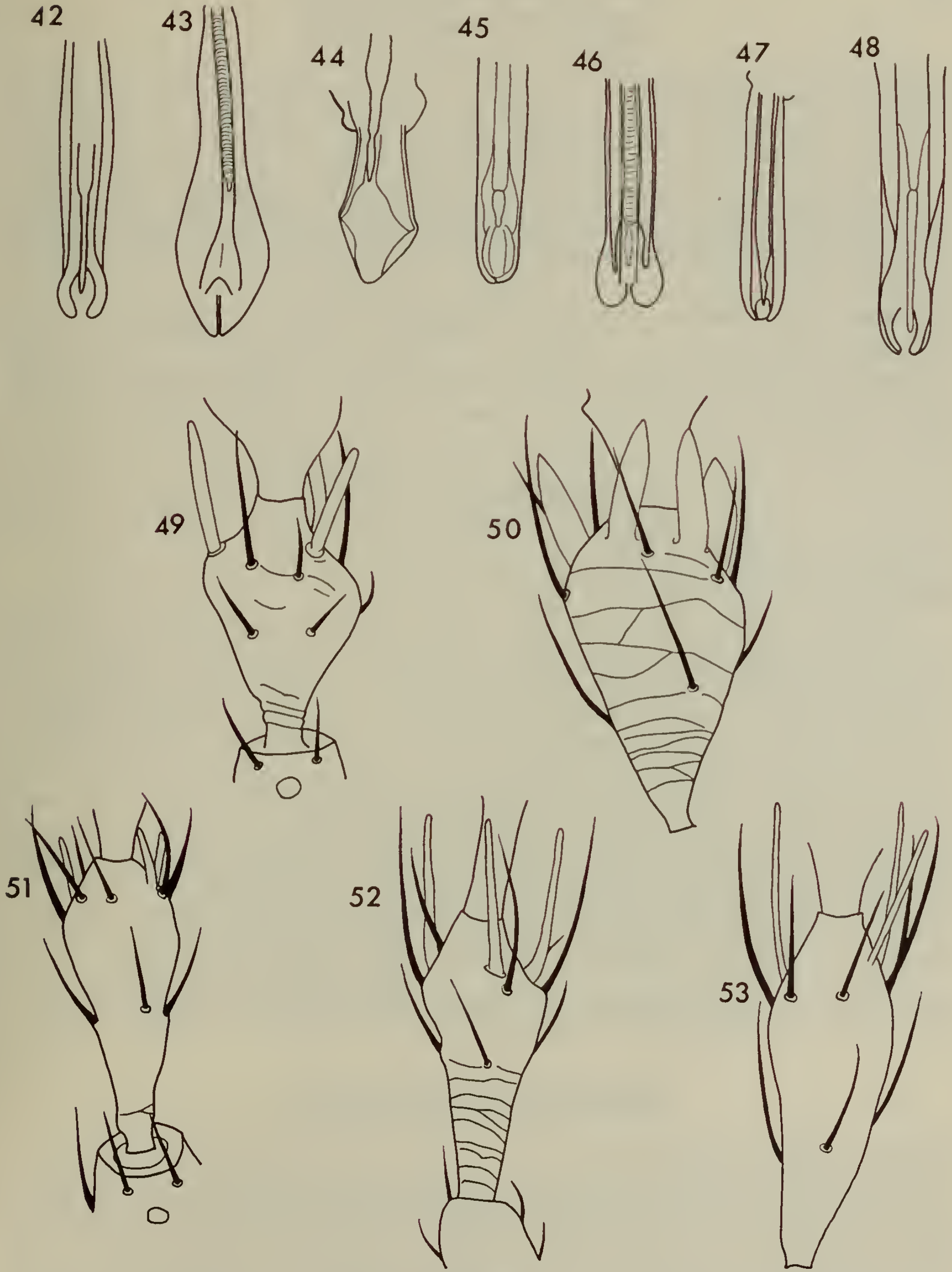
Holotype ♂. FRANCE : l'Hospitalet, 6,000 ft., *Dianthus fimbriatus*, viii.1926 (*R.S.B.*).

Haplothrips quadraticeps Bagnall

Haplothrips quadraticeps Bagnall, 1933a : 333–334.

This species resembles *juncorum* in the shape of the head and eyes, and the elongate maxillary stylets which are close together in the middle of the head. The terminal wing cilia are weakly plumose and the pronotal anteromarginal setae are no longer than the discal setae.

Holotype ♀. FRANCE : L. Bouillouse, nr. Montlouis, *Sempervivum*, viii.1926 (*R.S.B.*).



Figs. 42–53. Figs. 42–48. Aedeagus of *Haplothrips* species males : 42, *articulosus*. 43, *propinquus*, holotype. 44, *longipes*, lectotype. 45, *priesnerianus*. 46, *tenuipennis*, 47, *maltbaeki*, paratype. 48, *tertius*, paratype. Figs. 49–53. Antennal III of *Hoplandrothrips* species : 49, *coffeae*. 50, *flavipes*. 51, *hoodi*. 52, *hystrix*. 53, *trybomi*.

Haplothrips reuteri (Karny)

Anthemothrips reuteri Karny, 1907 : 51.
Haplothrips satanus Bagnall, 1933a : 321–323.
Haplothrips tenuisetosus Bagnall, 1933a : 320–321.
Haplothrips reuteri (Karny) ; Priesner, 1964 : 151.

According to Priesner this species is widespread in the Mediterranean region. The median dorsal setae on abdominal segment IX are almost as long as the tube, and the three subbasal wing setae arise close together with their bases forming a triangle.

Holotype ♀ of *satanas*. FRANCE : Perpignan, *Centaurea solstitialis*, viii.1926 (*R.S.B.*).

Holotype ♀ of *tenuisetosus*. SUDAN : Wad Medani, *Dolichos lablab*, 7.iv.1932 (*A. P. G. Michelmore*).

Haplothrips robustus Bagnall

Haplothrips robustus Bagnall, 1918a : 209–210.
Haplothrips melanoceratus Bagnall, 1918a : 210. **Syn. n.**
Haplothrips ? clarisetis O'Neill, 1960 : 507–510.

This species is apparently common in South Australia on many flowers and there is considerable size variation in the specimens available to the present author. The tip of the aedeagus is triangular and the species can further be distinguished from *clarisetis* Pr. by ; 1. tergite IX median setae softly rounded not acute at apex ; 2. basal wing seta III not much longer than II ; 3. male pronotal anteromarginal setae much weaker than antero-angulars. The species recorded by O'Neill from North America as ? *clarisetis* is very probably *robustus*, but males have not been found and it is possible that further closely related species will be found in Australia. *H. melanoceratus* was described from a single female with uniformly dark antennae taken with *robustus* females which have rather paler antennals III.

Holotype ♀. SOUTH AUSTRALIA : Adelaide, Mt. Lofty Range, flowers of *Acacia myrtifolia* or *Epachris impressa*, 9.viii.1914 (*E. B. Poulton*).

Holotype ♀ of *melanoceratus*. SOUTH AUSTRALIA : Adelaide, Outer Harbour, flowers of *Mesembryanthemum*, 28.viii.1914 (*E. B. Poulton*).

Haplothrips senecionis Bagnall

Haplothrips senecionis Bagnall, 1932a : 164.

This species apparently differs from *distinguendus* in having softly rounded apices to the major setae. It is related to both *verbasci* Osborn and *marrubiicola*, and has been recorded from both Britain and France. There are four slides bearing both sexes and labelled ' paratypes ' in the Bagnall collection.

Paratypes ♂♂ and ♀♀. SCOTLAND : Kinghorn, *Senecio jacobea*, vii.1930 (*R.S.B.*).

Haplothrips setiger Priesner

Haplothrips trifolii var. *setiger* Priesner, 1921a : 11.
Haplothrips plumociliatus Maltbaek, 1931 : 3. **Syn. n.**
Haplothrips sedicola Bagnall, 1933a : 317–318. **Syn. n.**
Haplothrips tenuicornis Bagnall, 1933a : 318–319. **Syn. n.**
Haplothrips uzelianus Bagnall, 1933a : 317–318. **Syn. n.**

The above synonymy is based on a comparison of material from Austria determined as *setiger* by Dr. H. Priesner with two syntypes of *plumociliatus* and the type material of the three Bagnall species. Priesner (1964 : 151) separates *plumociliatus* on the grounds that the epimeral setae are pointed, but the major setae of *setiger* are finely chisel-shaped and therefore appear flattened or pointed depending on the position from which they are viewed. In typical forms of this species only the epimeral setae are larger than the pronotal discal setae, but in some specimens labelled *sedicola* by Bagnall (not the type series from White Sedum) the anterior and posterior angular setae are almost half as long as the epimerals. In most of the specimens of *sedicola* the epimerals are 85μ long and in none of the available specimens are these setae more than 95μ. Bagnall's record of *setiger* on *Sedum* at l'Hospitalet (1933a : 323) is a mis-identification of *maltbaeki*.

Syntypes ♂ and ♀ of *plumociliatus*. SPAIN : St. Helena, *Anthemis*.

LECTOTYPE ♀ of *sedicola*. FRANCE : Ax-les-Thermes, White Sedum, viii.1926 (*R.S.B.*).

Holotype ♀ of *tenuicornis*. FRANCE : Canet Plage, nr. Perpignan, *Lotus*, viii. 1926 (*R.S.B.*).

LECTOTYPE ♂ of *uzelianus*. CZECHOSLOVAKIA : Vsetin, ix.1929 (*R.S.B.*).

Haplothrips silhouettensis Bagnall

Haplothrips silhouettensis Bagnall, 1921b : 268–269.

Five of the original eight specimens have been examined and they all lack antennae, postocular and basal wing setae, as well as the setae on tergite IX and the tube. There is only one major pronotal seta available between all the specimens, this is dark with an expanded apex.

LECTOTYPE ♂. SEYCHELLES : Silhouette, Mare aux Cochons, ix.1908 (*H. Scott*).

Haplothrips sorghi Bagnall

Haplothrips sorghi Bagnall, 1933a : 331–332.

Although related to *priesnerianus*, this species has dark major setae and the third subbasal wing setae are strongly expanded apically. *H. cahirensis* (Trybom) may be a senior synonym.

LECTOTYPE ♂. SUDAN : Blue Nile Province, Darwish, *Sorghum*, [ix.1931] (*W. P. L. Cameron*).

Haplothrips sorghicola Bagnall

Haplothrips sorghicola Bagnall, 1933a : 332–333.
Haplothrips confinis Priesner, 1950 : 79–80. **Syn. n.**

The above synonymy is based on a comparison of Bagnall's unique holotype with Priesner's description of *confinis*, and a series of specimens from Segou, Mali Republic. Several of Bagnall's measurements of the holotype are overestimated, thus the three subbasal wing setae are 32 : 35 ; 48μ in length, and the postocular setae 42μ arising 15μ behind the eye. The species differs from *priesnerianus* in having yellow apices to the tibiae.

Holotype ♀. SUDAN : Blue Nile Province, Darwish, *Sorghum*, [ix.1931] (*W. P. L. Cameron*).

Haplothrips tenuipennis Bagnall

(Text-fig. 46)

Haplothrips tenuipennis Bagnall, 1918a : 210–211.
Haplothrips ceylonicus var. *mangiferae* Priesner, 1933 : 359. **Syn. n.**

The present author has not seen any specimens of *ceylonicus* which bear the original data given by Schmutz (1913 : 1039), but most of the material from India in the British Museum collection labelled *ceylonicus* is here regarded as conspecific with *tenuipennis*. Paratypes of *mangiferae* have been examined. Contrary to Ananthakrishnan (1964 : 48) antennals III to VI are yellow, as are the tarsi and the apices of the middle and hind tibiae. The median setae on tergite IX are shorter than the tube, the third subbasal wing seta is acute, and the inner sense cone on antennal III is smaller than the outer. The shaft of the aedeagus is slightly curved upwards but the extreme tip is weakly expanded and turned down.

LECTOTYPE ♂. INDIA : Darjeeling District, Ringtong Tea Estate, on rose, 14.vi.1916 (*E. A. Andrews*).

Paratypes ♀ of *mangiferae*. JAVA : Semarang, *Mangifera indica* flowers, 25.viii. 1912 (*van Leeuwen*).

Haplothrips tertius Bagnall

(Text-fig. 48)

Haplothrips (*Trybomiella*) *tertius* Bagnall, 1934b : 484–485.

The present author has collected this species commonly at Wad Medani, Sudan, on the flowers of garden Zinnias. It can be distinguished most readily from *articulosus* by the spoon-shaped aedeagus tip. The type specimen is not in the Paris Museum or the British Museum (Natural History).

Paratypes ♂♂ & ♀♀. MALI : Koulikoro, *Chrysanthemum procumbens*, 1.vii.1913 (*J. Vuillet*).

Haplothrips victoriensis Bagnall

Haplothrips victoriensis Bagnall, 1918a : 208–209.

This large dark species has a wide and stout maxillary bridge and the stylets are also rather stouter than usual. The major setae are all dark with broadly expanded apices, except the third subbasal wing seta which is pale and softly pointed.

LECTOTYPE ♂. AUSTRALIA : Victoria, Healesville, *Prostanthera lasiantha*, 18.xii.1915 (*R. Kelly*).

HOLUROTHRIPS Bagnall

Holurothrips Bagnall, 1914f : 376. Type-species *H. ornatus*, by monotypy.

This genus is near *Hystricothrips* Karny from which it can be distinguished by the longer and less hairy tube. The genus may be defined as follows.

Head widest across eyes, slightly narrowed basally, interocellar projection about two thirds as long as rest of head. Two pairs of interocellar setae, one pair of postocellars, and two pairs of postocular setae ; cheeks with one stout seta just beyond eye. Antennae eight-segmented, III and IV with two sense cones. Pronotal antero-angular setae close to midlaterals ; praepectus present, mesopraesternum not seen, metanotum reticulate. Pelta broad, tergites IV and V with three pairs of wing retaining setae, tergite IX with B_1 and B_2 setae short and stout ; tube long, curved ventrally, setose in basal four fifths.

Holurothrips ornatus Bagnall

Holurothrips ornatus Bagnall, 1914f : 376–377.
Holurothrips leeuweni Priesner, 1934b : 62–63. **Syn. n.**

This synonymy is based on a comparison of the two original specimens with three paratypes of *leeuweni*. Bagnall's specimens are macropterous, but most of the differences indicated by Priesner are due to the fact that *ornatus* was described from dry carded specimens and *leeuweni* from specimens on slides. The lateral abdominal, and marginal wing retaining setae are pale yellow in both forms, but the accessory wing retaining setae are black.

LECTOTYPE ♂. SARAWAK : Matang, 1,000 ft., in decaying leaves, 2.xii.1913 (*G. E. Bryant*).

Hoplandrothrips bidens (Bagnall)

Acanthothrips bidens Bagnall, 1910g : 374–375.
Hoplandrothrips ellisi Bagnall, 1914a : 35–37. **Syn. n.**
Hoplandrothrips collinsi Bagnall, 1914a : 37–38. **Syn. n.**
Phloeothrips parvulus Bagnall, 1927b : 584–585. **Syn. n.**

This species apparently varies considerably in size and colour. In gynaecoid males the fore femoral tubercles are not developed. The author is grateful to Dr. G. D. Morison for his comments on this synonymy. The holotype male of *collinsi* was taken with the type series of *ellisi* but is mounted on a blackened slide and is spoiled.

Holotype ♂. HUNGARY : Budapest, in moss, 4.xii.1905 (*Biro*).

Paratypes ♂ of *ellisi*. ENGLAND : Warwickshire, Balsall Common, dead branches, ix.1913 (*R.S.B.*).

Holotype ♂ of *parvulus*. FRANCE : Plage d'Hyères, *Pinus halepensis*, ix.1927 (*R.S.B.*).

Hoplandrothrips brunneicornis Bagnall

Hoplandrothrips brunneicornis Bagnall, 1917 : 23–24.

Holotype ♂. WEST INDIES : St. Vincent (*H. H. Smith*).

Hoplandrothrips coffeae Bagnall

(Text-fig. 49)

Hoplandrothrips coffeae Bagnall, 1929d : 75–76.

This species is similar to *flavipes* in that antennal III is short and broad, the width is about three quarters the length, but it differs from both *marshalli* Karny and *ugandensis* Priesner in having the pronotal anteromarginal setae developed, about half as long as the antero-angulars.

Syntypes ♂ & ♀. TANGANYIKA : Bukoba, Kamachumu, curling leaves of coffee, ix.1926 (*A. H. Ritchie*).

Hoplandrothrips flavipes Bagnall

(Text-fig. 50)

Hoplandrothrips flavipes Bagnall, 1923c : 628–629.

This species differs from *coffeae* not only in the bright yellow tibiae, but also in having four short fat sense cones on antennal III. The sensoria on IV are normal and slender however, unlike *gracillicornis* Priesner.

Holotype ♀. KENYA : Kijalie, Kikuyu Escarpment, xii.1911 (*Alluaud & Jeannel*).

Hoplandrothrips hoodi Bagnall

(Text-fig. 51)

Hoplandrothrips hoodi Bagnall, 1913f : 297–298.

This differs from the other described East African forms in the long antennal III, 2·5 times as long as wide. The pronotal anteromarginal setae are well developed and the hind tibiae are brown medially.

Syntypes ♂♂ & ♀. TANGANYIKA : Arusha, x–xi. 1905 (*Katona*).

Hoplandrothrips hystrix Bagnall

(Text-fig. 52)

Hoplandrothrips hystrix Bagnall, 1929d : 74–75.

This species resembles *marshalli* Karny and *ugandensis* Priesner in having the pronotal anteromarginal setae reduced and the antero-angulars very long, arising at some distance from the pronotal fore margin. Antennal III is long, more than twice as long as broad.

Syntypes ♂. SIERRA LEONE : Njala, on Grapefruit bark, 10.iv.1927 (*E. Hargreaves*).

Hoplandrothrips trybomi (Bagnall) **comb. n.**

(Text-fig. 53)

Cryptothrips trybomi Bagnall, 1913f : 295.

The eyes are rather small and the antennae long, but otherwise this species fits well into the genus *Hoplandrothrips*. The maxillary stylets are retracted far into the head and lie close together in the mid line.

Holotype ♀ (not ♂). TANGANYIKA : Moschi, 15.viii.1905 (*Katona*).

Hoplandrothrips xanthopoides Bagnall

Hoplandrothrips xanthopoides Bagnall, 1917 : 22–23.

Holotype ♂. WEST INDIES : St. Vincent (*H. H. Smith*).

HOPLOTHRIPS Amyot & Serville

Hoplothrips Amyot & Serville, 1843. Type-species *Trips corticis* De Geer, designated by Karny, 1912e.
Hoplothrips Amyot & Serville ; Mound, 1966c : 126–128.
Dolerothrips Bagnall, 1910d : 682–683. Type-species *D. flavipes*, by original designation.

Bagnall described nine species under *Dolerothrips* and two under *Trichothrips* from the Hawaiian Islands, but these species are in need of further study and comparison with fresh material. The original specimens are fragmentary, and since the time of their description, studies on European and North American members of the genus have shown that species can vary considerably depending on the season and degree of wing development. *H. flavipes* is probably distinct, but *barbatus* is an oedymerous male and probably belongs with one of the other forms. *H. perkinsi* and *laticornis* differ from the other species in not having the base of antennals IV and V yellow. However the length of the abdominal setae is of doubtful value on the available material. The species were described from carded specimens which have now been mounted on slides, and further study suggests that certain setae are not ' obsolete ' as described but broken. All the specimens have minor anteromarginal pronotal setae, and the antero-angulars are short except in two oedymerous males.

Hoplothrips angusticeps (Bagnall)

Dolerothrips angusticeps Bagnall, 1910d : 688.

One micropterous male without antennae remains in the collection.

LECTOTYPE ♂. Hawaii : Molokai, Kalae, 7.viii.1893 (*Perkins* 172).

Hoplothrips barbatus (Bagnall)

Dolerothrips barbatus Bagnall, 1910d : 683–684.

Holotype ♂. Hawaii : Kona, 4,000 ft., under rotting log, ix.1892 (*Perkins*).

Hoplothrips bicolor (Bagnall)

Dolerothrips bicolor Bagnall, 1910d : 688–689.

The colour of the unique micropterous female, which lacks antennae, does not appear to differ radically from the other Hawaiian forms such as *barbatus*, *dubius* and *ovatus*.

Holotype ♀. Hawaii : Oahu, Kaala Mts., 2,000 ft., i.1893 (*Perkins* 56).

Hoplothrips dubius (Bagnall)

Dolerothrips dubius Bagnall, 1910d : 691.

Only one macropterous female of this species remains in Bagnall's collection.

LECTOTYPE ♀. Hawaii : Molokai Mts., 4,500 ft., 21.xi.1893 (*Perkins*).

Hoplothrips flavipes (Bagnall)

Dolerothrips flavipes Bagnall, 1910d : 685–686.

Of the four females and one male, all micropterae, labelled *flavipes* in Bagnall's collection only one female specimen has not been treated with strong caustic alkali and this is here designated as lectotype. The figure in Zimmermann (1948 : 402) by Bianchi and labelled *flavipes* Bagnall is almost certainly not this species. In *flavipes* the postocular setae are softly pointed and their length is about equal to half the head width. The epimeral and postero-angular pronotal setae are equal in length to the postoculars, but the midlaterals are rather longer. The antero-angulars are small except in one oedymerous male, in which they are about half as long as the postoculars. None of the *Hoplothrips* species described by Bagnall from Hawaii have pronotal setae as figured by Bianchi, moreover antennal VIII is constricted basally in lateral view in *flavipes* (cf. Zimmermann, 1948 : 393).

LECTOTYPE ♀. Hawaii : Maui, Haleakala, 5,000 ft., iv.1894 (*Perkins*).

Hoplothrips intermedius (Bagnall)

Dolerothrips intermedius Bagnall, 1910d : 689–690.

The tube has been lost from the unique male on which this species is based.

Holotype ♂. [Hawaii : Maui, Haleakala, 3,000 ft.] (*Perkins* 809).

Hoplothrips lanaiensis (Bagnall)

Dolerothrips lanaiensis Bagnall, 1910d : 690–691.

This species is represented in Bagnall's collection by two female and one male micropterae.

LECTOTYPE ♂. Hawaii : Lanai, 2,000 ft., i.1894 (*Perkins*).

Hoplothrips laticornis (Bagnall)

Trichothrips laticornis Bagnall, 1910d : 692–693.

The broad head of the unique holotype may be an artefact due to pressure when the specimen was mounted.

Holotype ♀. Hawaii : Kona, 3,000 ft., ix.1892 (*Perkins*).

Hoplothrips longisetis (Bagnall)

Trichothrips longisetis Bagnall, 1910f : 662–663.
Hoplothrips (*Maderothrips*) *longisetis* (Bagnall) Priesner, 1964 : 203.

Holotype ♂. England : Durham, Gibside, 1907 (*R.S.B.*).

Hoplothrips melanurus (Bagnall)

Trichothrips melanurus Bagnall, 1919 : 276–277.

Bagnall compared this species to *semicaecus* Uzel, from which it differs in the longer and less pedicelate antennal segments, and the absence of accessory sensoria on antennals IV and V.

Holotype ♀. Australia : Victoria, Fern Tree Gulley, under dead *Eucalyptus* bark, 27.x.1913 (*F. Spry*).

Hoplothrips nigricans (Bagnall)

Trichothrips nigricans Bagnall, 1910d : 693–694.

Bagnall described this species from one macropterous female without antennae. It is very closely related to the other Hawaiian forms and may be the macroptera of *bicolor* with which it was apparently collected.

Holotype ♀. Hawaii : Oahu, Kaala Mts., 2,000 ft., i.1893 (*Perkins* 56).

Hoplothrips ovatus (Bagnall)

Dolerothrips ovatus Bagnall, 1910d : 686–687.

Two male and one female micropterae remain in Bagnall's collection.

LECTOTYPE ♂. Hawaii : Maui, Haleakala, 9,000 ft., 11.iv.1894 (*Perkins* 124).

Hoplothrips pedicularius (Haliday)

Phlaeothrips pedicularius Haliday, 1836 : 441.
Trichothrips propinquus Bagnall, 1910f : 661–662.
Trichothrips britteni Bagnall, 1926f : 284–285.

Two of the four original specimens of *propinquus* have been studied. These are macropterous females from which the wings have been broken, not apterae as described.

LECTOTYPE ♀ of *britteni*. England : Oxford, Shotover, dead oak stump, 4.iii.1916 (*H. Britten*).

Syntypes ♀ of *propinquus*. England : Durham, Gibside, iv.1909 (*R.S.B.*).

Hoplothrips perkinsi (Bagnall)

Dolerothrips perkinsi Bagnall, 1910d : 687–688.

The antennae are missing from the unique holotype but they were described as being brown with the basal part of III yellowish.

Holotype ♀. Hawaii : Lanai, 2,000 ft., xii.1893 (*Perkins* 92).

Hoplothrips poultoni (Bagnall)

Trichothrips poultoni Bagnall & Kelly, 1929b : 90–91.

Holotype ♀. Australia : Victoria, flew onto newspaper, 9.xii.1927 (*R. Kelly* ns 45).

Hoplothrips semicaecus (Uzel)

Trichothrips semicaeca Uzel, 1895 : 249–250.
Trichothrips amabilis Bagnall, 1926f : 283–284.
Hoplothrips semicaecus (Uzel) ; Priesner, 1964 : 195.

Holotype ♀ of *amabilis*. England : Surrey, Gomshall, on hazel sticks, 5.ix.1926 (*R.S.B.*).

HYSTRICOTHRIPS Karny

Hystricothrips Karny, 1912c : 132. Type-species *H. phasgonura*, by monotypy.
Zeugmatothripoides Bagnall, 1929d : 71–72. Type-species *Z. africanus*, by monotypy. **Syn. n.**

The original specimen upon which *Hystricothrips* was based has not been examined by the present author, but Bagnall's species from Sierra Leone fits so closely to

Karny's figure and description of *phasgonura* from Spanish Guinea that there can be little doubt as to the generic synonymy. The genus is close to *Holurothrips*, which is also based on specimens from leaf litter, but it can be recognized by the completely setose tube and may be defined as follows :

Head broadest across eyes, narrowed basally, weakly extended in front of eyes ; no major interocellar setae, one pair of postocellars and one pair of very long postocular setae ; cheeks with two pairs of stout major setae on tubercles. Antennae eight-segmented, VIII weakly narrowed basally ; I with two stout dorsal setae, II with one dorsal seta extending almost to apex of III ; two sense cones on both III and IV. Pronotum transverse, epimeral sutures complete, antero-angular seta close to midlateral. Pelta broad, abdominal tergites with two pairs of wing retaining setae, the anterior pair short and straight ; tube narrowed apically, densely clad with setae which are as long as the width of the tube.

Hystricothrips africanus (Bagnall) **comb. n.**

Zeugmatothripoides africanus Bagnall, 1929d : 72–73.

Accessory cilia cannot be observed on the fore wings of the unique holotype as these are folded, extending to the posterior margin of tergite VI. The only other two specimens known are brachypterous and micropterous and hence would not be expected to bear accessory fore wing cilia. *H. phasgonura* Karny was described as having twenty three accessory cilia and the body colour was given as dark brown, whereas the *africanus* specimens are yellow with brown markings. From the gut contents it is evident that the species feeds on spores, and the two specimens referred to above were taken on *Cola* leaf litter at Ibadan, Nigeria. The larvae bear numerous very long capitate setae and there is a long seta on antennal III extending to the apex of the antenna.

Holotype ♀. SIERRA LEONE : Njala, *Cola*, 17.viii.1928 (*E. Hargreaves*).

IDOLOTHRIPS Haliday

Idolothrips Haliday in Walker, 1852 : 1096. Type-species *I. spectrum* Haliday, designated by Froggatt, 1904.
Idolothrips Haliday ; Froggatt, 1904 : 54–57.
Acanthinothrips Bagnall, 1908c : 207. Type-species *I. spectrum* Hal., by monotypy.
Idolothrips Haliday ; Bagnall, 1916b : 404.

Comparisons with *Idolothrips* can be found under *Elaphrothrips* and *Meiothrips*. Most of the species originally assigned to *Idolothrips* have been removed to *Elaphrothrips*, and the present author has not examined any species that can be placed in *Idolothrips* other than the type, *spectrum*, and its synonyms from Australia. The genus may be defined briefly as follows :

Head long, weakly constricted medially and projecting slightly in front of eyes ; dorsal surface transversely striate ; two pairs of postocular setae, one behind the other ; cheeks with about twelve pairs of stout pale setae ; inter- and postocellar setae stout ; maxillary stylets broad, V-shaped, low in head ; antennae long. Pronotum transverse, sculptured, epimeral suture incomplete posteriorly ; all major setae well developed, antero-angular close to midlateral, two pairs of major epimeral setae. Praepectus present, large but weakly sclerotized, mesopraesternum broad. Metanotal setae far apart, not enlarged. Fore wing rather pointed apically with more than sixty accessory cilia. Fore tarsi unarmed ; external surface of femora angular each angle bearing a stout seta. Pelta very broad, trilobed. Posterolateral angles of tergites produced, strongly in males, weakly in females. Tube hairy in basal two thirds.

Idolothrips spectrum Haliday

(Text-fig. 55)

Idolothrips spectrum Haliday in Walker, 1852 : 1097.
Idolothrips marginata Haliday in Walker, 1852 : 1096. **Syn. n.**
Idolothrips lacertina Haliday in Walker, 1852 : 1097. **Syn. n.**
Idolothrips spectrum Haliday ; Froggatt, 1904 : 54–57.
Idolothrips marginatus f. *invalida* Priesner, 1928b : 654.
Idolothrips lacertinus f. *infirma* Priesner, 1928b : 654.
Idolothrips kellyanus Bagnall, 1932e : 518–519. **Syn. n.**

In his original description Haliday indicated the possibility that *marginata* represented the female and *spectrum* and *lacertina* the male. Froggatt concluded from his field studies that only one species was involved and selected the name *spectrum*. Bagnall (1916) rejected this however and recognized two species under the names *marginata* and *lacertina*, and separated them on the form of the male lateral abdominal tubercles. Priesner further distinguished these forms on the ratio of head length to width. The present author has examined many specimens from Australia and these two forms are to be found in the same population. The male tubercles and setae sometimes do not correspond on opposite sides of the body (Text-fig. 55) and the variation is correlated with body size. The colour of the stem of antennal VI varies from yellow to brown in the material examined, and so *kellyanus* is here interpreted as a small female of *spectrum*.

Holotype ♀ of *kellyanus*. SOUTH AUSTRALIA : Lyrup, nr. Renmark, River Murray, dead leaves of *Eucalyptus melliodora* (*R. Kelly*).

ISOPTEROTHRIPS Bagnall

Isopterothrips Bagnall, 1926d : 553. Type-species *I. tenuipennis*, by monotypy.

This genus is very close to *Diceratothrips*, but may be distinguished by the narrow base of the long tarsal tooth, the pelta with very slender lateral lobes, and antennal IV with only three sense cones. The fore coxae bear six or more short stout setae on the posterior margin, and in the male there is in addition a group of about five setae directed anterolaterally.

Isopterothrips tenuipennis Bagnall

(Text-figs. 56–58 & 73)

Isopterothrips tenuipennis Bagnall, 1926d : 554.
Dichaetothrips penicillatus Priesner, 1937b : 626–629. **Syn. n.**

The fore wings are colourless in this species and the tube is sculptured. The postocellar setae are about as long as one side of the ocellar triangle, but the posterior dronotal setae are

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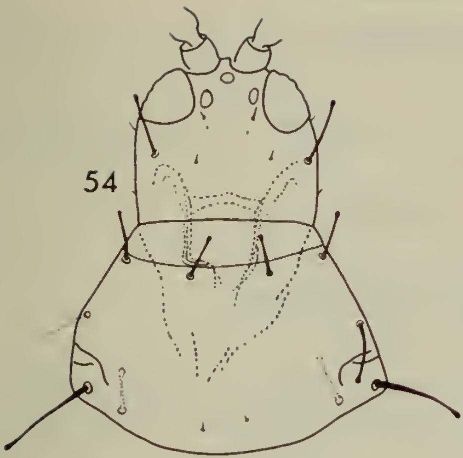

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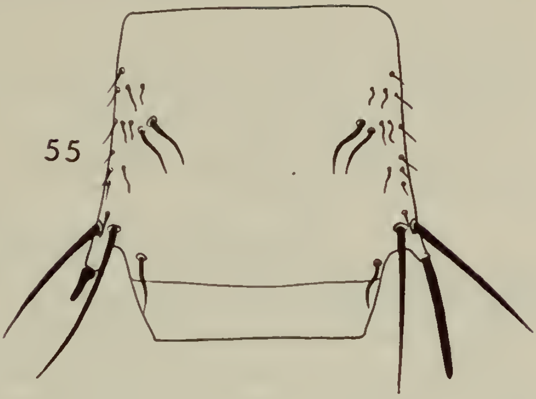

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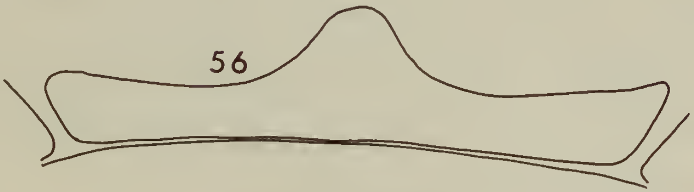

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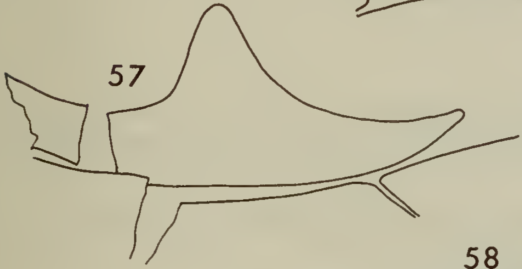

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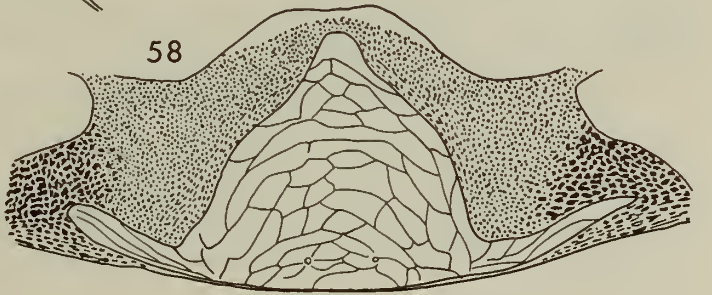

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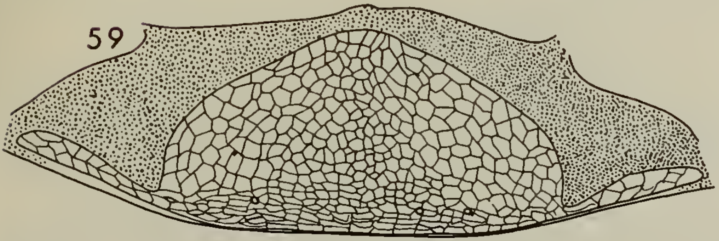


FIGS. 54–59. Fig. 54. *Mimothrips hargreavesi*, head and pronotum to show maxillary bridge. Fig. 55. *Idolothrips spectrum*, tergite VII of male with dissimilar postero-angular setae. Figs. 56–58. *Isopterothrips tenuipennis* : 56, Mesopraesternum of female. 57, Mesopraesternum of male. 58, Pelta. Fig. 59. *Lamillothrips typicus*, pelta.

very long, particularly the midlateral setae of the male. The anterior margin of the mesosternum is only half as wide in the male as in the female, the mesopraesterna therefore differ considerably in shape between the sexes.

Holotype ♀. GHANA : Aburi, in shot hole borer's tunnel in dead *Loranthus* stem on *Hevea*, 3.xii.1915 (*W. H. Patterson*).

Holotype ♂ of *penicillatus*. SIERRA LEONE : Njala, in twigs of *Bauhinia tomentosa*, 1936 (*E. Hargreaves*).

Karnyothrips duplicatus (Bagnall) **comb. n.**

Podothrips duplicatus Bagnall, 1918a : 211–213.

Most of the major setae are missing from the unique holotype, and the only two remaining are on the pronotum. These setae are widely expanded suddenly at the apex as in *flavipes* Jones, and the stout hind femora and short tube also recall that species. In *duplicatus* however the mesopraesternum is not reduced medially and the pronotal anteromarginal setae are not small.

Holotype ♀. GHANA : Aburi, Canna flowers, 30.xi.1915 (*W. H. Patterson*).

Karnyothrips flavipes (Jones)

Anthothrips flavipes Jones, 1912 : 18–19.
Haplothrips longisetis Bagnall, 1913f : 297.

The genus *Karnyothrips* Watson, 1923 with *flavipes* as type-species, is here accepted as a valid genus for a small group of *Haplothrips*-like species with stout hind femora and apical setae longer than the tube.

Holotype ♀ of *longisetis*. EGYPT : Alexandria, dead twig of Fig, 6.iii.1905 (*F. V. Theobald*).

Karnyothrips melaleucus (Bagnall)

Hindsiana melaleuca Bagnall, 1911c : 61–62.

Although described from a single specimen taken in a European glasshouse, Priesner (1964) states that this species occurs in Africa, India and North America.

Holotype ♀. DENMARK : Copenhagen, on cruciferous flower in Palm House, 30.vi.1909 (*R.S.B.*).

KELLYIA Bagnall

Kellyia Bagnall, 1929h : 188–189. Type-species *Teuchothrips hoodianus*, by monotypy.

This is distinguished from *Teuchothrips* by its longer head and antennae. The type-species shares the following characters with *Teuchothrips* species ; antennae eight-segmented, VII and VIII closely united ; one sense cone on III, three major sense cones on IV ; maxillary stylets approach each other in middle of head ; fore tarsus with a stout claw ; praepectus absent, mesopraesternum degenerate medially ; pronotum with longitudinal median line thickened ; pelta triangular with apical margin transverse ; tergites with two pairs of wing retaining setae ; body surface reticulate ; tube weakly constricted apically.

Kellyia hoodianus (Bagnall)

Teuchothrips hoodianus Bagnall, 1924k : 630–631.

LECTOTYPE ♂. AUSTRALIA : Victoria, Lake Tyers, *Acacia elata*, 21.ii.1919 (*R. Kelly*).

Kladothrips acallurus Bagnall

Kladothrips acallurus Bagnall, 1932e : 507–509.

This species is very similar to *rodwayi* Hardy, of which it is possibly a synonym. The postocular setae are well developed, broadly expanded apically and almost reach the posterior margin of the eye.

LECTOTYPE ♂. AUSTRALIA : without data (*Kelly* ns 133).

Kladothrips differens Bagnall

Kladothrips differens Bagnall, 1932e : 509.

This species has similar postocular setae to *acallurus* but these arise far behind the eye. The species *froggatti*, *intermedius* and *tepperi* Karny have no major postocular setae.

Holotype ♂. AUSTRALIA : without data (*Kelly* ns 133?).

Kladothrips froggatti Bagnall

Kladothrips froggatti Bagnall, 1929h : 196.

This is close to *tepperi* Karny and *intermedius*, and further material is required to define them clearly. Major postocular setae are absent in each of these forms.

Syntypes ♀. AUSTRALIA : Tasmania, in *Acacia* sp. galls, 7.ix.1903 (*A. M. Lea*).

Kladothrips intermedius Bagnall

Kladothrips intermedius Bagnall, 1929h : 196–197.

Intermediate in size between *tepperi* Karny and *froggatti*, it is possible that these three forms are identical.

LECTOTYPE ♀. AUSTRALIA : Victoria, Melbourne, on *Acacia* sp. (*E. T. Carter*).

KLEOTHRIPS Schmutz

Kleothrips Schmutz, 1913 : 1057–1058. Type-species *K. gigans*, by monotypy.
Dracothrips Bagnall, 1914c : 290. Type-species *D. ceylonicus*, by monotypy.
Kleothrips Schmutz ; Priesner, 1934–1935.

Bagnall (1915c : 269) subsequently indicated that *ceylonicus* was a synonym of *gigans*. Both species were collected at the same locality, Peradeniya, Ceylon. The genus should be compared to *Mecynothrips* (q.v.).

Kleothrips gigans Schmutz

Kleothrips gigans Schmutz, 1913 : 1058–1062.
Dracothrips ceylonicus Bagnall, 1914c : 290–291.

The two original specimens of *ceylonicus* have apparently been lost. The original data were ; CEYLON : Peradeniya, swept from bushes (*E. E. Green* 2961). Priesner indicates that *gigans* always has a small tooth at the base of the fore tibia of the male, but a gynaecoid male apparently of this species from Ceylon is in the British Museum (Natural History) and lacks all trace of the tooth. *K. simplex* may be a synonym of *gigans* but further series are essential to establish the range of variation.

Kleothrips simplex (Bagnall)

Mecynothrips simplex Bagnall, 1912a : 216.

As indicated above the unique male of this species is very similar to *gigans* Schmutz, of which it may prove to be a synonym.

Holotype ♂. PHILIPPINES : without data (*E. Simon*).

KOPTOTHRIPS Bagnall

Koptothrips Bagnall, 1929h : 197. Type-species *K. flavicornis*, by monotypy.

The unique male upon which this genus is based is contracted and crushed. The praepectus is apparently absent, the pelta small and triangular, and the abdominal tergites bear two pairs of wing retaining setae. A redefinition of the genus must await the collection of further material.

Koptothrips flavicornis Bagnall

Koptothrips flavicornis Bagnall, 1929h : 197–198.

Holotype ♂. AUSTRALIA : Victoria, Gippsland, *Acacia* sp. (*C. French*).

LAMILLOTHRIPS Bagnall

Lamillothrips Bagnall, 1923c : 630–631. Type-species *L. typicus*, by orignal designation.

This genus is very similar to *Machatothrips* but differs in having more than one pair of wing retaining setae on the tergites, and the lateral expansions of the pelta are typically slender. *Hylothrips* Priesner, 1932c, may be a synonym as one male in the Paris Museum collection labelled *Hylothrips vitulus* (Karny) by Priesner is congeneric with *typicus*. The anterolateral margins of the pronotum are expanded into distinct flanges in the male but only weakly expanded in the female. Similarly the tubercle which bears the epimeral seta is much larger in the male than in the female.

Lamillothrips typicus Bagnall

(Text-fig. 59)

Lamillothrips typicus Bagnall, 1923c : 631.
Lamillothrips pennicollis Bagnall, 1923c : 631. **Syn. n.**
Machatothrips longidens Bagnall, 1934b : 491–492. **Syn. n.**

The three specimens upon which Bagnall erected the two species of *Lamillothrips*, together with the holotype of *longidens*, form a continuous gradation in size. There is no good reason for regarding the largest specimen as a different species from the smallest. The epimeral tubercles bear two pairs of major setae.

LECTOTYPE ♂. GHANA : Aburi, in tunnel of *Cacao* moth borer, 17.xi.1915 (*W. H. Patterson*).

Holotype ♂ of *pennicollis*. GHANA : Aburi, in tunnel of *Cacao* moth borer, 17.xi.1915 (*W. H. Patterson*).

Holotype ♂ of *longidens*. SIERRA LEONE : Njala, xi.1926 (*E. Hargreaves*).

Leeuwenia coriacea (Bagnall)

Panurothrips coriaceus Bagnall, 1921a : 216–217.
Leeuwenia coriacea (Bagnall) ; Priesner, 1929a : 449.

Two of the original four females remain in the Bagnall collection. There are no major setae on the head or the anterior margin of the pronotum, and the most closely related species appears to be *eugeniae*.

LECTOTYPE ♀. INDIA : West Dehra Dun, Karwapanny, on ' Piaman ' leaves (*Iyer*).

Leeuwenia eugeniae Bagnall

Leeuwenia eugeniae Bagnall, 1924k : 640.
Leeuwenia eugeniae Bagnall ; Priesner, 1929a : 449.

This species is very close to *coriacea* from which it differs in having shorter and less numerous setae on the tube. The antero-angular seta on the pronotum is small but arises from a relatively large base, as in *coriacea*.

LECTOTYPE ♀. INDIA : Madras, Kodaikanal, on *Eugenia* sp., 11.v.1919 (*Ramakrishna*).

Leeuwenia indica Bagnall

Leeuwenia indicus Bagnall, 1914f : 377–378.
Leeuwenia indica Bagnall ; Priesner, 1929a : 449.

The unique holotype of *indica* has not been found in either the British Museum (Natural History) or the Indian Museum. The original published data were as follows ; BURMA : Moulmein, 16.xi.1911 (*F. H. Gravely*) (Indian Museum No. 4297/20).

Liothrips amabilis Bagnall

Liothrips amabilis Bagnall, 1927a : 574–575.
Liothrips amabilis Bagnall ; Priesner, 1964 : 191–192.

Holotype ♀. France : nr. Hyères-la-Plage, *Phyllirea*, ii.1927 (*R.S.B.*).

Liothrips brevicollis (Bagnall)

Cryptothrips brevicollis Bagnall, 1915e : 199–200.
Liothrips brevicollis (Bagnall) ; Bagnall, 1926e : 661.

The two syntypes upon which this species is based may be small forms of *austriacus* Karny. The postocular setae barely extend beyond the hind margin of the eye and the other major setae are equally short. Antennal III is about 98µ long compared to 112–116µ in *austriacus* (in Priesner, 1964 : 192).

Syntypes ♀. Cyprus : *Vitis* (*Z. G. Solomides*).

Liothrips karnyi Bagnall

Liothrips karnyi Bagnall, 1924k : 631.
Liothrips reuteri Karny, 1920c : 40, nec *reuteri* Bagnall, 1913.

Bagnall proposed *karnyi* as a new name for a species described by Karny from Australia.

Liothrips kingi Bagnall

Liothrips kingi Bagnall, 1921c : 356–357.

This species has two pairs of postocular setae and the pronotal sculpture resembles that of *Gynaikothrips* species. It is retained in *Liothrips* on account of the long pointed mouth cone, although the pale setae are also unusual in that genus. *Liothrips anogeissi* Priesner, 1965 is very closely related.

Syntypes ♂♂ & ♀♀. Sudan : Mongalla Province, Gebel Odo, 5.i.1911 (*H. H. King*).

Liothrips oleae (Costa)

Thrips oleae Costa, 1857 : 80–82.
Liothrips oleae (Costa) ; Priesner, 1964 : 190.
Leurothrips linearis Bagnall, 1908c : 198–199. **Syn. n.**

The original description of *linearis* states in error that wings and ocelli are absent. The wings were left in the glue on the original card mount when Bagnall prepared one specimen on a slide. These wings have now been recovered and mounted with the specimen. The postocular setae are not shorter than typical *oleae* in either of the original specimens.

LECTOTYPE ♀. Grand Canary : Sardilla, 1900 (*Alluaud*).

Liothrips reuteri (Bagnall)

Compsothrips reuteri Bagnall, 1913f : 295.
Liothrips reuteri (Bagnall) ; Priesner, 1964 : 190.

Holotype ♀. EGYPT : Suez, 4.viii.1902 (*Biro*).

Liothrips similis Bagnall
(Text-fig. 69)

Liothrips similis Bagnall, 1910a : 383–384.

The two species *elongatus* and *intermedius* which were described with *similis* are now placed in *Trybomia*. However *similis* appears to be a true *Liothrips* although the metanotum is broadly reticulate and seta B_1 on tergite IX is longer than the tube.

Holotype ♀. VENEZUELA : Los Adjuntas, 10.ix.1891 (*Meinert*).

Liothrips willcocksi (Bagnall)

Gynaikothrips willcocksi Bagnall, 1921c : 364.
Liothrips (*Epiliothrips*) *willcocksi* (Bagnall) Priesner, 1965 : 396–398.

This species is of interest in the *Liothrips* group in having a fore tarsal tooth in the male.

Holotype ♀. EGYPT : Ezbst el Nakhl (*F. C. Willcocks*).

MACHATOTHRIPS Bagnall

Machatothrips Bagnall, 1908c : 189. Type-species *M. biuncinatus*, by monotypy.
Adiaphorothrips Bagnall, 1909j : 536–537. Type-species *A. simplex*, by monotypy.

There are more than thirty five nominal species in this genus at present, but this figure is likely to be reduced when more of the type specimens are re-examined and compared with *biuncinatus*. The genus may be defined as follows.

Large dark species ; head about two thirds as wide as long, weakly constricted basally and behind eyes ; interocellar setae long, sometimes two pairs of postoculars ; cheeks with several pairs of stout setae ; eyes not large ; antennae eight-segmented, III with two sense cones ; maxillary stylets broad, V shaped within head, mouth cone acute. Prothorax broad ; praepectus present ; mesopraesternum sexually dimorphic, anterior margin of mesosternum much narrower in male than in female (cf. *Isopterothrips*). Fore tarsus armed, tooth larger in male than in female ; fore femur with a row of tubercles on inner margin in female. Fore wing parallel-sided, narrowed in apical third ; numerous accessory cilia. Metanotum reticulate. Pelta broad ; abdominal tergites each with only one wing retaining seta ; setae on tergite IX almost as long as tube.

The four species of this genus known to the present author may be distinguished as follows:

1 Fore femur of female with about 20 small tubercles 6μ in length on inner margin ; mid-dorsal setae of head less than one quarter as long as postocular setae ***antennatus***

– Fore femoral tubercles of female much larger and less numerous 2
2 Mid-dorsal setae of head about two thirds as long as postoculars ; fore tarsal tooth of female small with very broad base . . . . **biuncinatus**
– Mid-dorsal head setae shorter ; fore tarsal tooth of female large 3
3 Pronotal midlateral seta more than two thirds as long as epimeral seta ; mid-dorsal head seta no larger than rest of minor head setae ; fore tarsal tooth of female longer than broad ; basal fore femoral tubercle about its own length from sub-basal tubercle . . . . **haplodon**
– Pronotal midlateral seta about half as long as epimeral seta ; mid-dorsal head seta usually reaches base of postocular ; fore tarsal tooth of female broader than long ; first two fore femoral tubercles closer together than their length. . . **braueri**

Machatothrips antennatus (Bagnall)

Adiaphorothrips antennatus Bagnall, 1915b : 594.

This species was described from two specimens mounted on a card. These, a male and a female, have now been mounted on slides. The very small tubercles on the fore femora of the female are quite distinctive, and in both sexes the first pair of postocular setae are about five times as long as the second pair.

LECTOTYPE ♀. SARAWAK : Matang, 1,000 ft., under bark of dead tree, 7.xii.1913 (*G. E. Bryant*).

Machatothrips biuncinatus Bagnall

Machatothrips biuncinata Bagnall, 1908c : 189–190.
Adiaphorothrips simplex Bagnall, 1909j : 537–538. **Syn. n.**

Although this species was stated to be based on a single male, it is clear from the description and the remains of the holotype (one fore leg) that the specimen was actually a female. The second postocular seta is very long, about two thirds as long as the first postocular. The fore tarsal tooth of the female is small but with a very broad base, whereas that of the male is long and acute. The species is widespread in the Indonesian region and the present author has examined specimens from the Solomon Islands.

Holotype ♀ (fore leg only). SOUTHERN NEW GUINEA (Netherlands Expedition 1904–5).

LECTOTYPE ♂ of *simplex*. BORNEO : Sambas, v.1890 (*Th. F. Lucassen*).

Machatothrips braueri Karny

Machatothrips braueri Karny, 1912a : 23–26.
Machatothrips multidens Bagnall, 1934b : 487–488. **Syn. n.**
Machatothrips paucidens Bagnall, 1934b : 489. **Syn. n.**
Machatothrips paucidens var. *bicolorisetosus* Bagnall, 1934b : 489–490. **Syn. n.**

The above synonymy is based on a comparison of the type specimens of each nominal form with further material collected in Nigeria. In describing *multidens* Bagnall compared his specimens with *haplodon* Karny not the true *braueri* as is evident from his comments on the fore tarsal teeth. The number of tubercles on the fore femur of females in *braueri* is dependant on the size of the individual. Small females have fewer tubercles and *paucidens* is here regarded as a small form. The species is known from Sierra Leone, Ghana, Nigeria, Cameroon and Congo.

Holotype ♀. CAMEROON : Bascho, iv.1909 (*Oberlt. Bartsch S.V.*). Humboldt University Museum, Berlin.

LECTOTYPE ♀ of *multidens*. GHANA : Aburi, in tunnels of *Cacao* stem moth borer, x.1915 (*W. H. Patterson*).

LECTOTYPE ♀ of *paucidens*. GHANA : Aburi, in tunnels of *Cacao* stem moth borer, 29.x.1915 (*W. H. Patterson*).

LECTOTYPE ♀ of *bicolorisetosus*. SIERRA LEONE : Njala, in tunnels of Coffee twig borer, 7.i.1927 (*E. Hargreaves*).

Machatothrips haplodon Karny **stat. n.**

Machatothrips braueri var. *haplodon* Karny, 1925a : 141.
Machatothrips braueri var. *buffai* Karny, 1925a : 142. **Syn. n.**
Machatothrips simplicidens Bagnall, 1934b : 490–491. **Syn. n.**

This species is known from Uganda and the Congo and can be recognized from *braueri* by means of the key given above.

Holotype ♀. UGANDA : Kampala, in Scolytid galleries on *Ficus ovata*, 8.viii.1921 (*H. Hargreaves*).

Holotype ♀ of *simplicidens*. FRENCH CONGO : Ntamba, River Kouilou (*H. Lecomte*). Paris Museum.

MACROTHRIPS Bagnall

Macrothrips Bagnall, 1908b : 359. Type-species *M. papuensis*, by original designation.

Macrothrips dubius Bagnall

Macrothrips dubius Bagnall, 1908b : 361.

The unique female of this species is probably a small form of *papuensis*.

Holotype ♀. NEW GUINEA : Dorey (*Wallace*).

Macrothrips papuensis Bagnall

Macrothrips papuensis Bagnall, 1908b : 359–360.
Macrothrips intermedia Bagnall, 1908c : 187–189.
Macrothrips papuensis Bagnall ; Moulton, 1947 : 178–179.

The unique holotype of *intermedius* is not in the British Museum (Natural History), and the published data were ; one ? male, Friedrich-Wilhelmshafen, German New Guinea. Moulton has indicated that this species varies in size and degree of development of certain characters.

Holotype ♂. NEW GUINEA : Dorey (*Wallace*).

Malacothrips lewisi (Bagnall)

Trichothrips lewisi Bagnall, 1914b : 30–31.
Malacothrips lewisi (Bagnall) ; Bagnall, 1924k : 635.

The mountant in which the unique holotype was prepared has turned black and the specimen is barely visible. The slide bears the following data ; JAPAN : Okinawa, Luchu Island (*J. E. A. Lewis*).

MECYNOTHRIPS Bagnall

Mecynothrips Bagnall, 1908b : 356–357. Type-species *M. wallacei*, by monotypy.

The genus *Kleothrips* is very close to *Mecynothrips* and could well be treated as a synonym. *Mecynothrips* is distinguished by the presence of horns on the anterior margin of the pronotum in the male, but both genera have many characters in common. The fore ocellus is weakly developed and a pair of setae arise lateral to this ocellus and not posterolateral as in *Elaphrothrips* species. There are several pairs of long wing retaining setae arising near the lateral margins of the tergites, a character not found in *Elaphrothrips* or the more closely related *Tiarothrips*.

Mecynothrips wallacei Bagnall

Mecynothrips wallacei Bagnall, 1908b : 357–358.

M. bagnalli Priesner (1935 : 335) is probably a synonym of *wallacei*. Bagnall's original figure is in error as his type specimen has two fore femoral teeth just as in Priesner's figure of *bagnalli*.

Holotype ♂. NEW GUINEA : Dorey (*A. R. Wallace*).

Megathrips brevis (Bagnall) **comb. n.**

Siphonothrips brevis Bagnall, 1914c : 291–292.

The fragmented unique holotype may be a small specimen of *lativentris* Heeger, although the present author has not seen any other specimen of that species with such short processes on segment six.

Holotype ♂. YUGOSLAVIA : Narenta (*J. Sahlberg*).

Megathrips honoris Bagnall

Megathrips honoris Bagnall, 1921d : 395.

This species is based on a unique male which Bagnall (1916b : 406) regarded originally as *quadrituberculatus*. The head of this specimen has been shattered but the species can be distinguished from *quadrituberculatus* as follows ; middle tibiae yellow only at extreme apex ; lateral setae on tube more than half median width of tube ; B_1 setae on tergite IX about one third as long as tube ; sensoria on antennals V and VI more than one third as long as these segments.

Holotype ♂. JAPAN : Kobe, iv.1915 (*J. E. A. Lewis*).

Megathrips nobilis Bagnall

Megathrips nobilis Bagnall, 1909e : 130–131.

Priesner (1964 : 140) states that *nobilis* occurs throughout Western and Central Europe on grass, but Morison (in litt.) has found all stages on dead branches of *Salix phylicifolia* in Scotland.

LECTOTYPE ♂. ENGLAND : Cambridgeshire, Wicken. Fen, dried sedges, iv–v.1896 (*D. Sharp*).

Megathrips quadrituberculatus (Bagnall)

Idolothrips quadrituberculata Bagnall, 1908c : 210–211.
Megathrips quadrituberculatus (Bagnall) ; Bagnall, 1921d : 396.

This can be distinguished from *honoris* by the greater extent of yellow colouration on the middle tibiae, shorter lateral setae on the tube, shorter B_1 setae on tergite IX, and shorter sensoria on antennals V and VI.

Holotype ♀. JAPAN : 7.iv.1881 (*G. Lewis*).

Meiothrips annulipes (Bagnall)

Acanthinothrips annulipes Bagnall, 1914f : 378–379.
Meiothrips annulipes (Bagnall) ; Bagnall, 1934b : 494.

The genus *Meiothrips* is related to *Idolothrips* in the possession of praepectal plates, a broad mesopraesternum, two pairs of postocular setae and the proximity of the pronotal anteroangular and midlateral setae. *Meiothrips* species have a pair of very large setae close together medially on the metanotum, and there is only one pair of major epimeral setae. *M. annulipes* and the type-species of the genus, *annulatus* Priesner, have no accessory cilia on the fore wing but these are present in *menoni* Ananthakrishnan according to its description.

LECTOTYPE ♂. SARAWAK : Matang, on dead bark, 13.xii.1913 (*G. E. Bryant*).

Mesothrips jordani Zimmermann

Mesothrips jordani Zimmermann, 1900 : 16–17.
Phlaeothrips similis Bagnall, 1909j : 533–534. **Syn. n.**

Ananthakrishnan (1964) has indicated some of the most important characters of the genus *Mesothrips* of which *jordani* is the type-species. In this species as in several others to be included in the genus, the praepectus is present and the mesopraesternum absent medially although widely expanded laterally. The head is suddenly narrowed basally, the cheeks bear a series of setae, the postoculars are long, there are three trichomes on antennal III, and the slender maxillary stylets are wide apart low in the head. The abdominal tergites bear two pairs of wing retaining setae, and anterolateral of these are six to ten small stout setae much as in *Giganto-*

thrips. Bagnall's male and female syntypes have been compared with one female syntype of *jordani*.

Syntypes ♂ & ♀ of *similis*. Java : Semarang, young top leaves of Waringin Tree [*Ficus benjamina*] (*E. Jacobson*).

MIMOTHRIPS Priesner **stat. n.**

(Text-figs. 54 & 71)

Mimothrips Priesner, 1949 : 72, as subgenus of *Eurhynchothrips*. Type-species *Eurhynchothrips hargreavesi* Priesner, by original designation.

This genus may be distinguished from *Eurhynchothrips* by :

Antennals III and IV with two sense cones ; fore wings without accessory cilia ; pronotum with only one pair of epimeral setae ; maxillary bridge longer, the stylets farther apart in the head (Text-fig. 54). The praepectus is absent, the mesopraesternum degenerate, and the abdominal tergites bear two pairs of wing retaining setae as in *Eurhynchothrips*.

Mimothrips longicornis (Bagnall) **comb. n.**

Trichothrips longicornis Bagnall, 1913f : 298–299.
Trichothrips longicornis Bagnall ; Bagnall, 1918a : 215–216.

The type series of this species is mounted on a slide with the mountant blackened and opaque. The material referred to by Bagnall in 1918 from Ghana, Aburi, has been studied. This may be distinguished from *hargreavesi* as follows ; postocular setae not as long as eye ; antennal V twice as long as broad ; metanotum with reticles equiangular not longitudinal as in *hargreavesi*. The paratypes on the blackened slide are from Sierra Leone, without further data.

MOULTONIDES Kevan

Moultonia Bagnall, 1929h : 199. Type-species *Dolerothrips geijerae* Moulton, by monotypy.
Moultonides Kevan, 1963, nom. nov. for *Moultonia* Bagnall, nec I. Bolivar.

The type-species of this genus is known from New South Wales, Australia.

Mystrothrips japonicus (Bagnall) **comb. n.**

(Text-fig. 72)

Cryptothrips japonicus Bagnall, 1921c : 355–356.

The unique specimen upon which this species is based differs from the type-species of *Mystrothrips* in lacking a fore tarsal tooth and in having acute setae at the apex of the tube. However the body surface, particularly the tergites and sternites of the abdomen, is conspicuously reticulate and there is a single pair of postocular setae arising near the inner margin of the eye. The pronotal major setae are long except the anteromarginals, and all the major body setae have long spoon-shaped apices. The praepectus is present, the pelta broad, and the tergites bear only one pair of wing retaining setae. The wings are parallel-sided without accessory cilia, and the base of antennal III is conspicuously annulated.

Holotype ♀. Japan : Kobe, on grass, 23.viii.1916 (*Lewis*).

NEOCECIDOTHRIPS Bagnall

Neocecidothrips Bagnall, 1929h : 186. Type-species *Eothrips bursariae* Moulton, by monotypy.

This genus is near *Teuchothrips* from which it can be distinguished by the presence of two sense cones on antennals III and IV. The praepectus is absent and the mesopraesternum degenerate medially. The only species has been recorded from Victoria and New South Wales, Australia.

Neoheegeria dalmatica Schmutz

Neoheegeria dalmatica Schmutz, 1909b : 344.
Cryptothrips tenuipilosus Bagnall, 1914c : 293–294.

The genus *Neoheegeria* is probably best used for those *Haplothrips*-like species which have three sense cones on antennal III, although this excludes the widespread species *verbasci* Osborn. The similarities between *dalmatica*, the type-species of the genus, and *verbasci* are probably superficial. The three Bagnall species treated below under *Neoheegeria* may eventually have to be placed elsewhere.

Holotype ♀ of *tenuipilosus*. GREECE : Corfu (*J. Sahlberg*).

Neoheegeria fuscicornis (Bagnall) **comb. n.**

Adraneothrips fuscicornis Bagnall, 1929e : 606.

This species cannot be placed in *Adraneothrips* as a well developed praepectus is present on the unique holotype. It is very close to *pictipes* but has the median setae on tergite IX distinctly rounded apically not acute.

Holotype ♀. MALAYA : *Messua ferrea* (*J. M. Brander*).

Neoheegeria pictipes (Bagnall) **comb. n.**

Haplothrips pictipes Bagnall, 1919 : 273–274.

This species has three sense cones on antennal III as in the closely related *fuscicornis*.

LECTOTYPE ♀. [INDIA : Talimparamta, Malabar, on diseased pepper berries, ix.1918 (*Ramakrishna*)]. Reg. 348.

Neoheegeria propinquus (Bagnall) **comb. n.**

Podothrips propinquus Bagnall, 1918a : 213.

The unique holotype has three sense cones on antennal III but unlike the above two species the fore tarsi are unarmed.

Holotype ♀. GHANA : Aburi, *Cola* shoots and buds, 5.xi.1912 (*W. H. Patterson*).

NESOTHRIPS Kirkaldy

Nesothrips Kirkaldy, 1907 : 103. Type-species *N. oahuensis*, by monotypy.
Oedemothrips Bagnall, 1910d : 680. Type-species *O. laticeps*, by monotypy (= *oahuensis* Kirk).
Coenurothrips Bagnall, 1921b : 271. Type-species *C. brevicollis*, by original designation, here regarded as a synonym of *validus*.
Nesothrips Kirkaldy ; Stannard, 1957 : 104–106.

The name of the type-species of *Coenurothrips* is preoccupied in *Nesothrips* by *brevicollis* Bagnall, 1914. However *C. brevicollis* Bagnall, 1921 is apparently identical with *validus* Bagnall, 1921. The genus is particularly difficult because so many species have been founded on uniques or small series of specimens. Information on variation of species is lacking. *N. propinquus* is now known from South Africa, Australia and New Zealand, and may have been distributed along shipping routes in dried grass used for animal fodder. If this is so then other grass-associated species may be shown to have been described under more than one name.

Nesothrips affinis (Bagnall)

Coenurothrips affinis Bagnall, 1921c : 361–362.

This is similar to *validus* from the Seychelles in the pronotal chaetotaxy and shape of the tube.

Holotype ?♀. CEYLON : among cotton from Hettipold Exp. Gd., 20.vi.1913 (*A. Rutherford*).

Nesothrips brevicollis (Bagnall)

Oedemothrips (?) *brevicollis* Bagnall, 1914b : 29–30.

Antennal segments I and II are bright yellow in this species and it is very similar to *ceylonicus* Karny, 1925a. Both species were described on unique females but the B_1 seta on tergite IX of *brevicollis* is short, less than two-thirds as long as the tube, whereas in *ceylonicus* this seta is more than five-sixths as long as the tube. These two species are related to *N. formosensis* Priesner according to the description, and also to the forms referred to under that name by Ananthakrishnan (1964 : 102) apparently from Southern India.

Holotype ♀. JAPAN : Okinawa, Luchu Island, v.1913 (*J. E. A. Lewis*).

Nesothrips collaris (Bagnall)

Cryptothrips collaris Bagnall, 1917 : 26–27.

The eyes are very little extended on the ventral surface of the head, less so than in *insularis*.

LECTOTYPE ♀. WEST INDIES : St. Vincent (*H. H. Smith*).

Nesothrips insularis (Bagnall)

Cryptothrips insularis Bagnall, 1914c : 295.
Cryptothrips icarus var. *tuberculatus* Priesner, 1922 : 105. **Syn. n.**
Cryptothrips brachyurus Bagnall, 1927a : 573–574. **Syn. n.**
Nesothrips tuberculatus (Priesner) ; Priesner, 1964 : 143.

The present author is grateful to Dr. zur Strassen for loaning specimens of *tuberculatus* and indicating the probability of this synonymy.

Holotype ♀. Canary Islands : Lancerota (*T. V. Wollaston*).

LECTOTYPE ♂ of *brachyurus*. France : Tamaris, on grass, 1.iii.1927 (*R.S.B.*).

Nesothrips minor (Bagnall)

Coenurothrips minor Bagnall, 1921b : 287–288.

This may be a small form of *validus*, the antennae are paler and the unique specimen is much smaller than the available series of that species.

Holotype ♀. Rodrigues : vii–xi.1918 (*Snell & Thomasset*).

Nesothrips oahuensis Kirkaldy

Nesothrips oahuensis Kirkaldy, 1907 : 103.
Oedemothrips laticeps Bagnall, 1910d : 680–681.
Nesothrips hawaiiensis, lapsus for *oahuensis* Kirkaldy ; Bianchi, 1944 : 31–38.

Syntype ♂ of *laticeps*. Hawaii : Oahu, Mts. nr. Honolulu, 2–3,000 ft., vii.1900 (*Perkins* no. 667).

Nesothrips propinquus (Bagnall)

Oedemothrips propinquus Bagnall, 1916b : 408–409.
Oedemothrips propinquus var. *breviceps* Bagnall, 1924k : 634–635.
Oedemothrips propinquus var. *obscuricornis* Bagnall, 1924k : 634.
Cryptothrips dimidiatus Hood, 1918b : 145–146. **Syn. n.**
Oedemothrips propinquus Bagnall ; Morison, 1931 : 453–454.
Bolothrips dimidiatus (Hood) Hartwig, 1948 : 116 & 124.
Neosmerinthothrips oleriae Moulton, 1949 : 492–494. **Syn. n.**

Type material of *dimidiatus* has not been studied. The author is grateful to Miss Anne Ward of Levin, New Zealand for material of this species and for discussing the range of variation. *N. brevicollis* and *ceylonicus* are rather similar, but in these species the lateral lobes of the pelta are joined to the median portion, whereas in *propinquus* the lateral lobes are small and quite separate from the rectangular median part of the pelta, even in the macropterous form.

Holotype ♀. Australia : Victoria, Healesville, Badger Weir, on clover, 6.iv. 1915 (*R. Kelly*).

Syntypes ♀ of *breviceps*. New Zealand : Nelson, on apricot, 26.viii.1924 (*E. S. Gourley*).

Paratype ♀ of *oleriae*. South Africa : Cape Province, Mossel Bay, vi–vii.1930 (*R. E. Turner*).

Nesothrips validus (Bagnall)

Coenurothrips validus Bagnall, 1921b : 272–273.
Coenurothrips brevicollis Bagnall, 1921b : 271–272. **Syn. n.**

Although *brevicollis* has page priority, the name is preoccupied in *Nesothrips* and *validus* is the next available name. Bagnall described *validus* from a single specimen, and the broader head and more bulky form are apparently due to crushing during mounting.

Holotype ♀. Seychelles : Silhouette [Mare aux Cochons, ix.1908].

Syntypes ♀ of *brevicollis*. Seychelles : Mahé [Mount Sebert, 2,000 ft., i.1909].

Onychothrips hakeae Bagnall

Onychothrips hakeae Bagnall, 1929h : 198–199.

Bagnall was unable to distinguish this species satisfactorily from *tepperi* Uzel, but described it as a new species on the basis of the different host association. *O. tepperi* was found on *Acacia aneura*, but Thysanoptera are not completely host specific (see *Teuchothrips pittosporiicola*) and *hakeae* is probably a synonym of *tepperi*.

LECTOTYPE ♂. Australia : New South Wales, Broken Hill, in galls on *Hakea* sp. (*O. Lower*).

Phaulothrips caudatus Bagnall

Phaulothrips caudatus Bagnall, 1932e : 510–511.

The unique holotype is shrunken and contains much white pigment internally, although it is not clear if this is an artefact. The species appears to be related to *Polyphemothrips* but agrees well with the definition of *Phaulothrips*. There is a pair of long anteocellar setae with flattened apices, and antennal segments V and VI are produced distally. The postocular setae are long and arise near the inner margin of the eyes. The pelta has a slender lateral lobe on each side and the abdominal tergites apparently have only one wing retaining seta. The tube is reticulate, slightly constricted apically, and the fore wing bears about sixteen accessory cilia. The maxillary stylets are broad and fairly close together in the middle of the head.

Holotype ♀. Australia : Victoria, Mornington, *Casuarina* branchlets, 21.x.1928 (*R. Kelly*).

Phlaeothrips annulipes Reuter

Phloeothrips annulipes Reuter, 1880 : 19–21.
Phloeothrips brevicollis Bagnall, 1911c : 62–63. **Syn. n.**

The status of *brevicollis* was queried by Priesner (1964), and the type specimen has now been compared with a series of the common *annulipes*. The generic position of this species is doubtful, and it is here placed in *Phlaeothrips* rather than *Hoplandrothrips* on account of the broad pelta and unconstricted fore wings. On a world wide basis these genera are less readily distinguished. The larvae of *annulipes* have head horns similar to *Acanthothrips nodicornis* but smaller.

Holotype ♀ of *brevicollis*. NORWAY : Bygdo nr. Christiania, on lime trees, 27.vi.1909 (*R.S.B.*).

Phlaeothrips bispinoides Bagnall

Phloeothrips bispinoides Bagnall, 1926e : 659–661.
Phlaeothrips bispinoides Bagnall ; Priesner, 1964 : 182.

This species is close to *annulipes* Reuter from which it differs in the darker tibiae and antennae, and the postocular setae which extend beyond the posterior margin of the eyes. Priesner gives the distribution as Switzerland, Germany and Czeckoslovakia.

LECTOTYPE ♀. SWITZERLAND : Zurich, *Fagus*, vii.1925 (*R.S.B.*).

Phlaeothrips coriaceus Haliday

Phlaeothrips coriacea Haliday, 1836 : 442–443.
Phloeothrips immanis Bagnall, 1927b : 582–584. **Syn. n.**
Acanthothrips coriaceus (Haliday) ; Stannard, 1957 : 25.
Phlaeothrips coriaceus Haliday ; Mound, 1966c : 126–128.

Phlaeothrips genus, with *coriaceus* Haliday as type-species, can be distinguished from *Acanthothrips* by the presence of four sense cones on antennal IV. The genus is very close to *Hoplandrothrips*, differing particularly in the form of the pelta, and it is also related to *Hoplothrips* whose species can usually be distinguished by their smaller eyes and weakly reticulate metanotum. *Phlaeothrips* and *Hoplandrothrips* species are usually macropterous, but wing reduction is common in *Hoplothrips*. Bagnall's species *immanis* is here regarded as a large form of *coriaceus*.

LECTOTYPE ♂ of *immanis*. SWITZERLAND : Sihwald, nr. Zurich, under logs, vii.1925 (*R.S.B.*).

Phlaeothrips gallicus Bagnall

Phloeothrips gallicus Bagnall, 1934e : 494–495.

The unique holotype of this species has not been found in either the British Museum (Natural History) or the Paris Museum. The original data published were ; FRANCE : Fontainebleu, on grasses, 20.v.1914 (*Vuillet*).

Phrasterothrips affinis Bagnall

(Text-fig. 60)

Phrasterothrips affinis Bagnall, 1924k : 633–634.

The present author has not examined *fuscus* Moulton, but the other species included in *Phrasterothrips* may be recognized as follows :

1 Sculpture of metanotum consisting of a series of short parallel lines close together, not forming any reticulation medially ; epimera with one major seta . ***omercooperi***
– Sculpture of metanotum reticulate medially, at least near extreme anterior border . 2
2 Median reticles of metanotum almost as broad as they are long ; epimera with two major setae ; anterior marginal setae of pronotum variable in length . ***conducans***
– Median reticles of metanotum narrow, broad only near anterior border ; eipmera with one major seta ; anterior marginal seta of pronotum no longer than discal setae . . . . ***affinis***

Further material is essential to the understanding of these species, since the anteromarginals are variable in *conducans* and the epimerals are variable in an undescribed species according to Stannard (1957). *P. affinis* is based on one male and one female.

Syntypes ♂ & ♀. Brazil (*J. Omer Cooper*, no. 79).

Phrasterothrips conducans Priesner

(Text-figs. 61 & 62)

Phrasterothrips conducans Priesner, 1921b : 210–213.
Phrasterothrips braziliensis Bagnall, 1924k : 632. **Syn. n.**

This is the type-species of the genus, and the above synonymy is based on a comparison of the types of *braziliensis* with material determined as *conducans* by Priesner, collected in Brazil from galls on *Myrica* sp.

LECTOTYPE ♀ of *braziliensis*. Brazil (*J. Omer Cooper*, no. 67).

Phrasterothrips omercooperi Bagnall

(Text-fig. 63)

Phrasterothrips omer-cooperi Bagnall, 1924k : 633.

The metanotal sculpture is rather similar to that of *affinis*, but in *omercooperi* the pronotal anteromarginals are well developed.

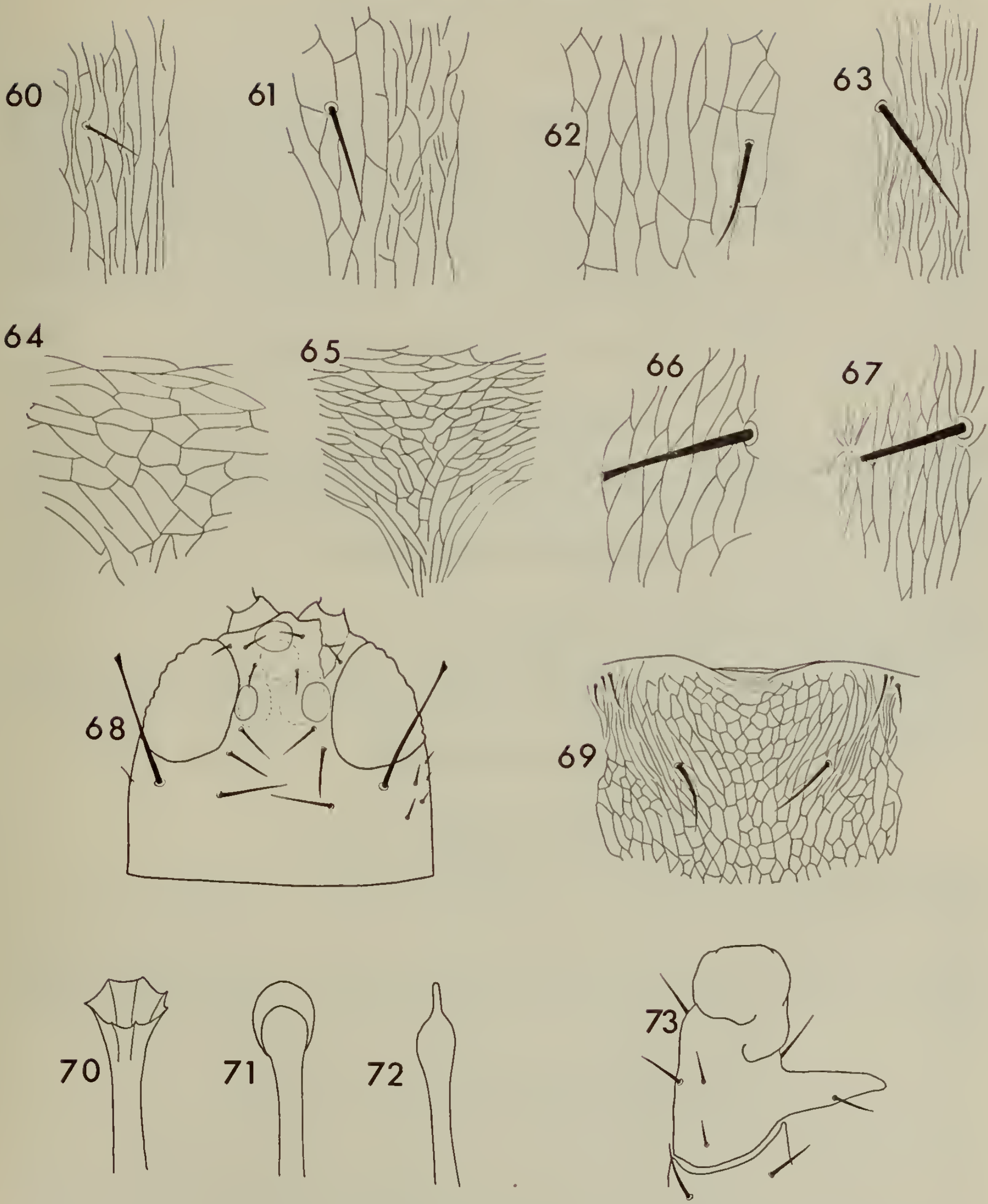
Syntypes ♀. Brazil (*J. Omer Cooper*, no. 79).

Plectrothrips collaris Bagnall

Plectrothrips collaris Bagnall, 1909j : 531–533.

According to Stannard (1957) *Plectrothrips* is well represented in the islands of the Western Pacific. *Kladothrips* has a rather similar pronotum, but in *Plectrothrips* the pelta is broad basally and the wing retaining setae only weakly developed.

Holotype ♂. Indonesia : Isle of Nias (*K. Jordan*).



FIGS. 60–73. Figs. 60–63. *Phrasterothrips* species, metanotal sculpture near median setae : 60, *affinis*. 61, *brasiliensis*. 62, *conducans*. 63, *omercooperi*. Figs. 64–67. Sculpture of *Gigantothrips* species : 64, *tibialis*, anteromedian area of mesonotum. 65, *nigrodentatus*, anteromedian area of mesonotum. 66, *modestus*, median area of metanotum. 67, *turneri*, median area of metanotum. Fig. 68. *Trichinothrips breviceps* (*branderi* holotype). Fig. 69. *Liothrips similis*, metanotal sculpture. Figs. 70–72. Apex of major setae : 70, *Eurhynchothrips convergens*. 71, *Mimothrips hargreavesi*. 72, *Mystrothrips japonicus*. Fig. 73. *Isopterothrips tenuipennis*, fore tarsus of female.

‘ *Podothrips* ’ *varicornis* Bagnall

Podothrips varicornis Bagnall, 1919 : 275–276.

The well developed praepectal plates of the unique holotype indicate that this species is not an *Adraneothrips* (cf. Bagnall, 1929 : 606) since the members of that genus lack these structures, nor yet a true *Podothrips* as species in that genus have a greatly enlarged praepectus. Contrary to the original description there are no fore wing accessory cilia. Dr. zur Strassen hopes to erect a new genus for this species shortly as both he and the present author have received fresh material from South Africa.

Holotype ♂. SOUTH AFRICA : Cape Town, Sugar Bush flower, 13.vii.1914 (*E. B. Poulton*).

POECILOTHRIPS Uzel

Poecilothrips Uzel, 1895 : 264. Type-species *P. albopicta* Uzel, by monotypy.
Cephalothripoides Bagnall, 1927b : 582. Type-species *Cephalothrips harrisoni*, by monotypy.

Poecilothrips albopictus Uzel

Poecilothrips albopicta Uzel, 1895 : 264.
Cephalothrips harrisoni Bagnall, 1926e : 657–659. **Syn. n.**
Poecilothrips albopictus Uzel ; Pelikan, 1950 : 152–163.

The above synonymy is based on a comparison of the unique holotype of *harrisoni* with Californian material of *ornatus* Hood, a synonym of *albopictus*.

Holotype ♀ of *harrisoni*. FRANCE : Orlu near Ax, on cherry log (*R.S.B.*).

POLYPHEMOTHRIPS Schmutz

Polyphemothrips Schmutz, 1909a : 276. Type-species *P. brasiliensis*, by monotypy.
Panceratothrips Bagnall, 1936 : 219–220. Type-species *P. typicus*, by monotypy. **Syn. n.**
Polyphemothrips Schmutz ; Stannard, 1957 : 76–78.

This synonymy is based on a comparison of Bagnall's material with Stannard's redefinition of the genus. The type-species, *brasiliensis*, is not known to the present author.

Polyphemothrips caudatus (Bagnall) **comb. n.**

Allothrips caudatus Bagnall, 1915b : 595–596.

The unique holotype agrees closely with the definition of *Polyphemothrips* given by Stannard (1957). Antennal segments VII and VIII are almost fused, the maxillary stylets fairly broad, meeting in the centre of the head, and the reticulations on the head are upturned medially. The praepectus is absent, the pelta small and there are two pairs of wing retaining setae on each tergite. As a result of this new combination *Adelothrips caudatus* Hood, 1955 : 90–92 becomes a secondary homonym and is here renamed *Polyphemothrips adelos* **n. n.**

Holotype ♀. SARAWAK : Mt. Matang, 11.xii.1913 (*G. E. Bryant*).

Polyphemothrips citricornis (Bagnall) **comb. n.**

Cryptothrips citricornis Bagnall, 1913f : 296.

The maxillary stylets meet in the centre of the head, and the reticulations on the dorsal surface of the head are upturned medially in this species. There are three sense cones on antennal III, and segments VII and VIII are broadly joined. The praepectus is absent, the anteromarginal pronotal setae apparently reduced, and there are two pairs of wing retaining setae on each tergite.

Holotype ♂. [TANGANYIKA] : Arusha, x–xi.1905 (*Katona*).

Polyphemothrips typicus (Bagnall) **comb. n.**

Panceratothrips typicus Bagnall, 1936 : 220.

Two females from the original series have been studied. The species agrees closely with Stannard's redefinition of the genus *Polyphemothrips*. Antennal segments VII and VIII are closely united, there are three sense cones on III and four on IV. The maxillary stylets approach each other in the centre of the head, and the reticulations on the head turn toward the anterior in the midline. The pronotal major setae are all well developed, the praepectus absent and the mesopraesternum broad. The pelta is small and triangular, and the tergites each have two pairs of wing retaining setae.

LECTOTYPE ♀. MADAGASCAR : Province of Tanarive, Soanierane, 1905 (*A. Mathiaux*). Paris Museum. A paralectotype ♀ bearing similar data is in the British Museum (Natural History).

PRIESNERIA Bagnall

Priesneria Bagnall, 1926d : 549. Type-species *P. kellyana*, by monotypy.

Priesneria kellyana Bagnall

Priesneria kellyana Bagnall, 1926d : 549–550.

The unique holotype resembles *Karnyothrips* species in the stout median and posterior femora, the short tube and long apical setae, but the fore tarsus is not armed. The praepectus is present but the mesopraesternum is degenerate medially. The major setae have expanded apices but the pronotal anteromarginals are small. Bagnall refers to the heavy body but this is due to contraction of the abdominal segments prior to mounting. Two basal wing setae with expanded apices are visible, the pore of what is probably the first basal wing seta is rather small. The wing apices are missing. This genus can only be distinguished from the *Haplothrips* group by the short antennal III which bears one sense cone, and antennal IV which bears two sense cones. The antennae may be aberrant.

Holotype ♀. AUSTRALIA : Victoria, Melbourne, 10.iii.1925 (*R. Kelly*).

Pselaphothrips pomeroyi Hood

Pselaphothrips pomeroyi Hood, 1916 : 11–12.
Pselaphothrips nigeriensis Bagnall, 1934b : 483–484. **Syn. n.**

This synonymy is based on a comparison of the type of *nigeriensis* with the description of *pomeroyi* from Cameroon and five other specimens from Nigeria. It is possible that *vuilleti* Karny, 1920b from Cameroon is also the same species.

The holotype of *nigeriensis* is a teneral specimen that has been treated with caustic alkali, and this explains the pale colour of the legs. The sexual dimorphism and the differences between the major and minor males are particularly interesting in this species. The female has short postocular setae close to the inner margin of the eye, unarmed fore tibiae, well developed pronotal anteromarginal setae, and four to six pairs of setae on the metanotum. The male has long postocular setae arising laterally on the cheeks, a small tooth on the inner margin of the fore tibia at its basal third, reduced anteromarginal setae, and eight or more pairs of metanotal setae. Oedymerous males have two femoral teeth instead of the single tooth found on each femur of the females and minor males. One oedymerous male from Nigeria has about sixteen pairs of metanotal setae. *Pselaphothrips* is similar to *Acanthothrips* and *Pristothrips*. The praepectus is absent, the mesopraesternum reduced, there are three sense cones on antennal III and four on IV, the mouth cone is very long, the pelta small, and there are two or more pairs of tergal wing retaining setae. The Nigerian specimens referred to above were taken at Ibadan, on Yam leaves, 7.vii.1964 (*B. A. Okwakpam*).

Holotype ♀ of *nigeriensis*. NIGERIA : Adio, 1926 (*O. B. Lean*).

Rhaebothrips major Bagnall

Rhaebothrips major Bagnall, 1928b : 75–76.
Rhaebothrips major Bagnall ; Bianchi, 1953 : 108.

Bianchi has pointed out that records of this species from Hawaii and Fiji are misidentifications. Bagnall's original specimen(?s) are not in the British Museum (Natural History), and the original data were : SAMOA : Upolu, Apia, 17.ix.1924.

RHOPALOTHRIPOIDES Bagnall

Rhopalothripoides Bagnall, 1929g : 174. Type-species *Rhopalothrips brunneus*, by original designation.
Froggattothrips Bagnall, 1929g : 175. Type-species *F. acaciae*, by original designation. **Syn. n.**

Head little longer than broad, slightly wider basally ; one pair of postocular setae, no ocelli. Maxillary stylets arise close to eyes, parallel to each other in middle of head, separated by a faint maxillary bridge ; mouth cone acute. Antennae eight-segmented, II narrowed to basal neck ; VI broad at apex as in *Cephalothrips* ; VII and VIII broadly united, VII not strongly constricted basally. Praepectus absent, mesopraesternum and basisterna degenerate. Fore tarsus armed ; wings absent, pterothorax reduced. Pelta four times as wide as long ; abdominal tergites II to VII with conspicuous transverse row of twelve or more small setae ; B3 on tergite IX long and fine, B1 and B2 short and expanded as are the other major setae. Sternite VIII in male with a small circular glandular area near anterior margin.

Froggattothrips was based on two males and two females, all of which have the typical appearance of specimens starved or desiccated prior to their death. The abdominal segments are telescoped into each other resulting in a broadly ovate profile, and the mouth parts have been forced into the sternum of the prothorax giving a rounded appearance to the mouth cone. Of the five nominal species described by Bagnall in this group only two are here considered valid and these may be separated as follows :

1 Setae on abdominal tergite II tending to be arranged in two transverse rows ; pelta reticulate ; metanotum with twelve or more setae ; pronotum longer than the head in the male . . . . **brunneus**

– Fewer setae on abdominal tergite II, in a single transverse row ; pelta with transverse lines only weakly joined to form reticles ; metanotum with ten setae ; male pronotum shorter than the head . . . . ***froggatti***

Rhopalothripoides brunneus (Bagnall)

Rhopalothrips brunneus Bagnall, 1916b : 412.
Rhopalothripoides brunneus (Bagnall) Bagnall, 1929g : 174.
Rhopalothripoides kellyanus Bagnall, 1929g : 174–175. **Syn. n.**
Froggattothrips acaciae Bagnall, 1929g : 175–176. **Syn. n.**
Froggattothrips inconsequens Bagnall, 1929g : 176. **Syn. n.**

The five nominal species in this group were described originally from seven specimens. These specimens are imperfectly mounted and some of the differences between them are due to differing degrees of contraction. Thus the figures given by Bagnall for the relative lengths of the head and tube in *acaciae* and *inconsequens* are the result of measuring the exposed dorsal surface of the tube in one specimen and the full internal length of the tube in the other. The specimen labelled *kellyanus* is very small but apparently does not differ from the other forms in any detail. In the male of this species the pronotum is enlarged, longer than the head, whereas in the male holotype of *froggatti* the pronotum is small. It is possible that the latter species is a gynaecoid form of *brunneus*.

Holotype ♀. AUSTRALIA : Victoria, *Acacia dealbata* (*R. Kelly*).

Holotype ♀ of *kellyanus*. AUSTRALIA : Victoria, *Acacia dealbata*, collected with *brunneus* holotype (*R. Kelly*).

Holotype ♀ of *acaciae*. AUSTRALIA : New South Wales, Termeil, *Acacia* sp., 27.ix.1899 (*W. W. Froggatt*).

Holotype ♀ of *inconsequens*. AUSTRALIA : New South Wales, Termeil, *Acacia* sp., (with *acaciae* ♀ & 2 ♂) 27.ix.1899 (*W. W. Froggatt*).

Rhopalothripoides froggatti (Bagnall)

Rhopalothrips froggatti Bagnall, 1916b : 411–412.
Rhopalothripoides froggatti (Bagnall) Bagnall, 1929g : 174.

Holotype ♂. AUSTRALIA : New South Wales, Upper Mangrove, in leaf glands of *Acacia decurrens*, 7.ix.1900 (*W. W. Froggatt*).

SEDULOTHRIPS Bagnall

Sedulothrips Bagnall, 1915d : 503. Type-species *S. insolens*, designated by Moulton, 1933.
Sedulothrips Bagnall ; Stannard, 1957 : 82–83.

Sedulothrips insolens Bagnall

Sedulothrips insolens Bagnall, 1915d : 503.

The unique holotype is not in the Hope Department at Oxford, nor in the British Museum (Natural History). The published data were ; TRINIDAD : in cracks of dead cacao tree.

TETRACANTHOTHRIPS Bagnall

Tetracanthothrips Bagnall, 1915b : 594. Type-species *T. borneensis*, by monotypy.

Tetracanthothrips borneensis Bagnall

Tetracanthothrips borneensis Bagnall, 1915b : 595.

The unique male holotype is not in the British Museum (Natural History) and has apparently been lost. The published data were : SARAWAK : Mt. Matang, xii.1913 (*G. E. Bryant*).

TETRACERATOTHRIPS Bagnall

Tetraceratothrips Bagnall, 1924k : 628. Type-species *T. agrestis*, by monotypy.

This genus is very close to *Phaulothrips* but the unique holotype of *agrestis* is densely pigmented and many structural details cannot be observed. The postocular setae referred to by Bagnall arise laterally on the cheeks as in *Phaulothrips*. There are two sense cones on antennals III and IV, the pelta has slender lateral expansions, and the tube is sculptured and constricted apically. The maxillary stylets are broad and close together in the midline of the head. Further material is required in order to determine the validity of this genus.

Tetraceratothrips agrestis Bagnall

Tetraceratothrips agrestis Bagnall, 1924k : 628–629.

Holotype ?♂. AUSTRALIA : [?N.S.W., 40 miles S. of Sydney,] Austinmer, Carnoy, iv.1914 (*L. Harrison*).

Teuchothrips brevis (Bagnall)

Mesothrips brevis Bagnall, 1924k : 636–637.
Teuchothrips brevis (Bagnall) Bagnall, 1929h : 190.

This species and *parvus* Zimmermann differ from the other *Teuchothrips* species in having the maxillary stylets very low in the head and wide apart, also the median pronotal carina is very weakly developed. In the male the B_1 setae on tergite IX are acute and as long as the tube, B_2 setae are short and stout.

LECTOTYPE ♂. CEYLON : [galling pepper], (*E. E. Green*).

Teuchothrips froggatti (Bagnall)

Mesothrips froggatti Bagnall, 1924k : 637.
Teuchothrips froggatti (Bagnall) Bagnall, 1929h : 190.

This species resembles *pittosporiicola* in having tergite IX B_1 setae of the male long and acute, and B_2 short and softly pointed. It differs from that species in lacking fore wing accessory cilia as do both *insolens* and *minor*, as well as the type-species of the genus *simplicipennis* Hood.

LECTOTYPE ♂. AUSTRALIA : New South Wales, Penshurst, nr. Sydney, *Callistemon* terminal leaf bud galls (*W. W. Froggatt*).

Teuchothrips insolens (Bagnall)

Mesothrips insolens Bagnall, 1924k : 638.
Teuchothrips insolens (Bagnall) Bagnall, 1929h : 190.

This species resembles the type-species of the genus, *simplicipennis* Hood, in lacking fore wing accessory cilia and in having B_1 and B_2 on tergite IX of the female expanded apically and about two thirds as long as the tube. In the male B_2 is short and expanded. The postocular setae are as long as the eye whereas in *simplicipennis* they are shorter.

Syntypes ♂♂ & ♀♀. AUSTRALIA : Victoria, Healesville, *Leptospermum myrsinoides*, i.1917 (*R. Kelly*).

Teuchothrips minor Bagnall

Teuchothrips minor Bagnall, 1929h : 193.

This differs from the other forms described in the genus without fore wing accessory cilia in having B_1 and B_2 on tergite IX short and subequal in length in both sexes, with the apices broadly expanded.

LECTOTYPE ♀. AUSTRALIA : New South Wales, Pt. Macquarie, in spirally curled leaf of *Melaleuca*, 3.ii.1900 (*W. W. Froggatt*).

Teuchothrips pittosporiicola Bagnall

Teuchothrips pittosporiicola Bagnall, 1929h : 191–192.

This is the only described species in this genus known to the present author with B_1 and B_2 setae on tergite IX as long as or longer than the tube and with the apices acute. In *bursariicola* Priesner these setae are softly pointed or weakly expanded. The males of both species have B_2 setae short and stout, about one third as long as B_1. The host associations of these thrips are apparently not as strict as Bagnall considered. The present author has recently studied specimens of *bursariicola* from deformed leaves of *Pittosporum phillyreoides* collected in Glen Osmond, South Australia.

LECTOTYPE ♂. AUSTRALIA : New South Wales, Botany, *Pittosporum* leaves, 14.iii.1900 (*W. W. Froggatt*).

Teuchothrips sodalis Bagnall

Teuchothrips sodalis Bagnall, 1929h : 190–191.

The unique holotype is in fragments but B_1 setae on tergite IX are about as long as the tube and B_2 about half as long, the apices of both being weakly expanded.

Holotype ♂. AUSTRALIA : New South Wales, Pt. Macquarie, in spirally curled leaf of *Melaleuca*, 3.ii.1900 (*W. W. Froggatt*).

Treherniella stoechas Bagnall

Treherniella stoechas Bagnall, 1927b : 578–579.
Treherniella stoechas Bagnall ; Priesner, 1964 : 204.

Syntypes ♂♂ and ♀♀. FRANCE : Ile d'Hyères, Porquerolles, *Helichrysum stoechas*, ix.1927 (*R.S.B.*).

TRICHINOTHRIPS Bagnall

Trichinothrips Bagnall, 1929e : 604–605. Type-species *T. branderi*, by original designation, regarded here as a synonym of *breviceps*.

Head about as wide as long ; maxillary stylets slender, wide apart low in head ; mouth cone short and rounded ; postocular setae expanded, longer than eyes ; two pairs of slender postocellar setae. Praepectus absent, mesopraesternum reduced medially, apparently fused to mesosternum ; midlateral and anteromarginal pronotal setae close to antero-angulars ; epimeral sutures incomplete. Metanotum with one pair of moderately stout setae ; fore wings with parallel sides and few accessory cilia ; pelta small and triangular ; tergites with two pairs of wing retaining setae ; B_1 and B_2 setae on tergite IX equal in length, longer than tube, with expanded apices.

Stannard (1957) indicates a relationship between this genus and *Phrasterothrips*, however *Trichinothrips* lacks sculpture medially on the metanotum and has antennal segments VII and VIII partially fused.

Trichinothrips breviceps (Bagnall)

(Text-fig. 68)

Trichaplothrips breviceps Bagnall, 1926d : 550.
Trichinothrips branderi Bagnall, 1929e : 605–606. **Syn. n.**

T. branderi is here interpreted as a small specimen of *breviceps*.

Holotype ♂. CEYLON : Peradenyia, predatory on *Archipsoccus* (Psocidae), xii.1911 (*Fryer*).

Holotype ♂ of *branderi*. MALAYA : *Messua ferrea* (*J. Brander*).

Trybomia elongata (Bagnall)

Liothrips elongatus Bagnall, 1910a : 382–383.

The unique holotype can be recognized as belonging to the genus *Trybomia* from the extension of the eyes on the ventral surface of the head, and also the very long interocellar setae.

Holotype ♀. VENEZUELA : Los Adjuntas, 10.ix.1891 (*Meinert*).

Trybomia intermedia (Bagnall)

Liothrips intermedius Bagnall, 1910a : 384–385.

The two syntypes of this species are not in the British Museum (Natural History) or the Copenhagen University Museum. The published data were : VENEZUELA : Los Adjuntas, 10.ix.1891 (*Meinert*). Priesner (1921 : 195) indicates that *phasma* Karny, the type-species of *Trybomia*, is a synonym of *intermedia*.

UROTHRIPS Bagnall

Urothrips Bagnall, 1909g : 126. Type-species *U. paradoxus*, by monotypy.

From being the type-genus of a Sub-Order including ten or more genera, *Urothrips* was reduced to the level of a subgenus of *Amphibolothrips* by Stannard, who also gives a table summarizing the important characters of the other members of the group (1957 : 30).

Urothrips paradoxus Bagnall

Urothrips paradoxus Bagnall, 1909g : 123–130.

This species is widespread between Kenya and South Africa.

Syntypes ♂ & ♀. [TANGANYIKA] : Arusha, x–xi.1905 (*Katona*).

FOSSIL THYSANOPTERA

AEOLOTHRIPIDAE

Archankothrips varicornis (Bagnall)

(Text-fig. 75)

Melanothrips [*sic*] *varicornis* Bagnall, 1923a : 36.
Archankothrips variicornis [*sic*] (Bagnall) Bagnall, 1926b : 17.

Priesner (1924b) erected the genus *Archankothrips* for a male specimen in Amber of which the prothorax was damaged. In *varicornis* the posterior margin of the pronotum bears six or seven pairs of major setae, and there are three pairs of post-ocular setae visible. The distal prolongation of antennal II was referred to by Bagnall in 1926, but the four transverse lines on antennal IX may be an artefact. The lines are not true sutures but are similar in appearance to the lines found on antennal segments in the recent genus *Dactuliothrips*. The sensoria on antennals III and IV are broader than in *Ankothrips* but not as broad as in *Erotidothrips*.

Holotype ♀. In Baltic Amber, IB 436 ; Type slide 1436.V.1.

EOCRANOTHRIPS Bagnall

Eocranothrips Bagnall, 1926b : 17. Type-species *Melanothrips annulicornis*, by monotypy.

Eocranothrips annulicornis (Bagnall)

(Text-figs. 74 & 80)

Melanothrips [*sic*] *annulicornis* Bagnall, 1923a : 36.

Two pairs of postocular setae are visible, one medially and one laterally, and there is a pair of stout interocellar setae. One pair of postero-angular pronotal setae is elongate, with about four pairs along the hind margin, and there is one pair of well developed anteromarginals. The antennae are much as in *Cranothrips* but the sensoria on III and IV are not visible.

Holotype ♀. In Baltic Amber, IB 186 ; Type slide no. 186.

RHIPIDOTHRIPOIDES Bagnall

Rhipidothripoides Bagnall, 1923a : 36. Type-species *R. abdominalis*, by monotypy.

Rhipidothripoides abdominalis Bagnall

(Text-fig. 78)

Rhipidothripoides abdominalis Bagnall, 1923a : 36.

This species occupies a position between *Melanthrips* and *Rhipidothrips*. Antennal segments VII to IX are connate but the fore wing has well developed cross veins and both longitudinal veins join the ring vein well before the wing apex. There are three pairs of ocellar setae, pair III about 95μ long arises within the ocellar traingle. The head is retracted into the prothorax and so the postocular setae, if present, are obscured. The pronotal anteromarginal, midlateral, postero-angular and posteromarginal setae are long and fine, about 100μ long, the antero-angulars rather shorter.

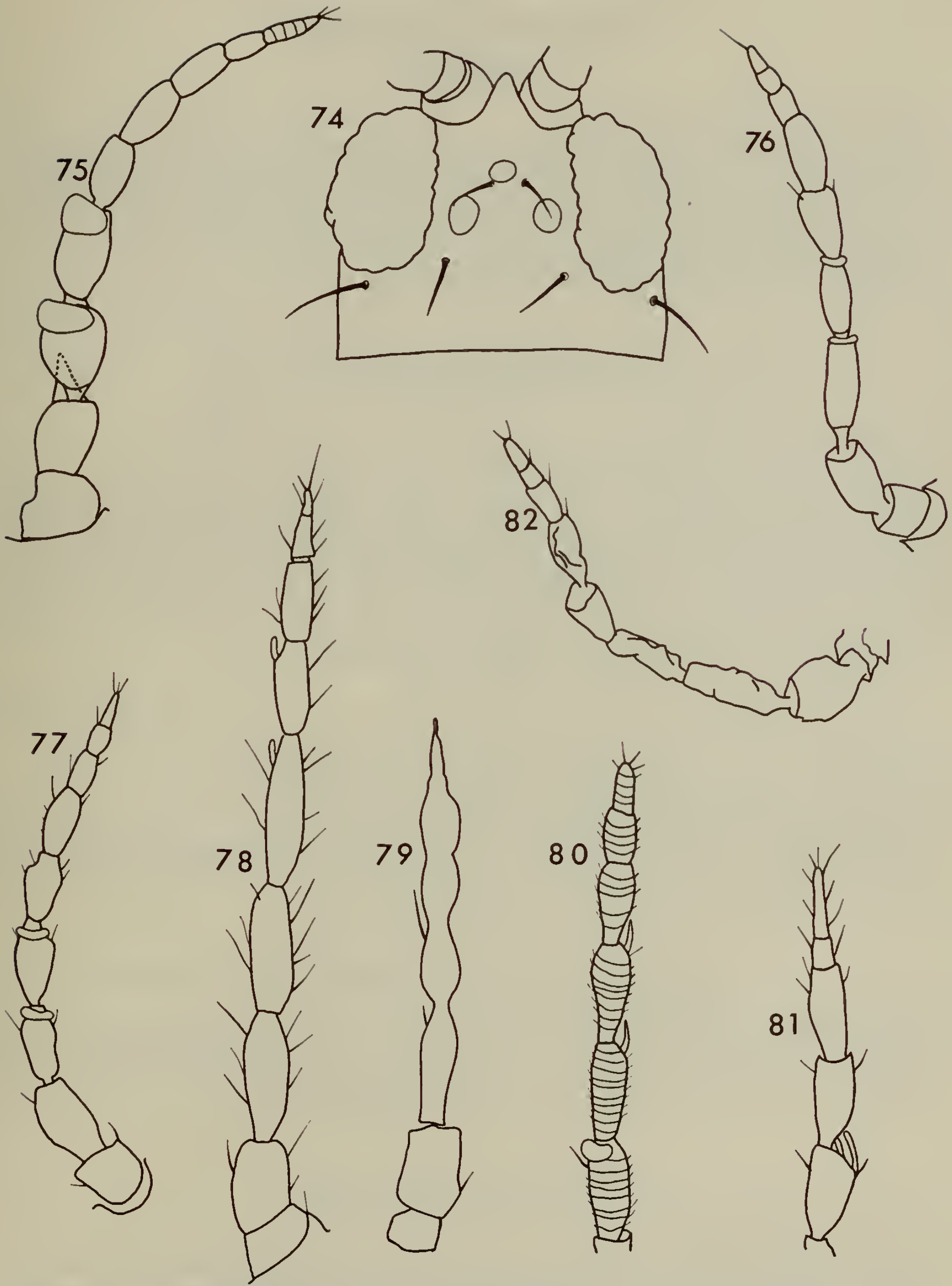
Holotype ♀. In Baltic Amber, IB 444.

HETEROTHRIPIDAE

HEMITHRIPS Bagnall

Hemithrips Bagnall, 1923a : 37. Type-species *H. femoralis*, by original designation.

Bagnall erected this genus as the type-genus of a new family, although that group is now given the status only of a tribe. The antennae show some relationship to the Melanthripini in the Aeolothripidae, but the ovipositor is typically Thripid and the head and pronotum lack major setae. In two of Bagnall's species the venal setae are all small and the wings *Anaphothrips*-like, but in *antiquus* the setae are stout. The following four names were given to figures of amber inclusa published by Schlechtendal (1887), *parallelicornis*, *schlechtendali*, *setosus*, and *thoracicus*. Bagnall did not examine the original material of these forms and their identity and relationships remains equivocal.



Figs. 74–82. Amber Inclusa. Fig. 74. *Eocranothrips annulicornis*, head. Figs. 75–82, Antennae : 75, *Archankothrips varicornis*. 76, *Hemithrips simplex*. 77, *Hemithrips antiquus*. 78, *Rhipidothripoides abdominalis*. 79, '*Heliothrips*' *scudderi*. 80, *Eocranothrips annulicornis*. 81, *Oxythrips physothripoides*. 82, *Hemithrips femoralis*.

Hemithrips antiquus Bagnall

(Text-fig. 77)

Hemithrips antiquus Bagnall, 1923a : 38.

No major setae are visible on the head and prothorax and the ovipositor is down-curved. However the antennae are typically Melanthripid with an apical annular sensorium on III and IV. The fore wings are 650μ long and 70μ broad medially, rather narrowed apically, but unlike *femoralis* the setae on the costa and both longitudinal veins are stout, 35–50μ long.

Holotype ♀. In Baltic Amber, without data.

Hemithrips femoralis Bagnall

(Text-fig. 82)

Hemithrips femoralis Bagnall, 1923a : 38.

The fore wings are similar to some *Anaphothrips* species, about 45μ wide medially. Both first and second veins apparently have a continuous row of small setae, and contrary to the original description, the costal setae are equally small (5μ). Bagnall probably interpreted the costal cilia as setae. The metanotum is reticulate without large setae, and no setae can be seen on the prothorax. A pair of small interocellar setae are present between the anterior margins of the hind ocelli, and there appear to be two pairs of small postocular setae. Only the four apical antennal segments are undistorted, but III and IV are apparently cylindrical. The fore femora are enlarged and the external apical margin bears a ridge.

Holotype ♀. In Baltic Amber, without data.

Hemithrips parallelicornis Bagnall

Hemithrips parallelicornis Bagnall, 1924g : 158.

This is based on Schlechtendal's illustration 4, which was originally considered to represent the male of *Thrips excellens* Schlechtendal, 1887.

Hemithrips schlechtendali Bagnall

Hemithrips schlechtendali Bagnall, 1924g : 158.

This is based on illustrations 5 to 8 by Schlechtendal (1887), which were originally considered to represent forms of *Thrips excellens* females.

‘ ***Hemithrips*** ’ ***setosus*** Bagnall

(?) *Hemithrips setosus* Bagnall, 1924g : 158.

A pair of major pronotal postero-angular setae are indicated on illustration 3 on which this species is based. Schlechtendal (1887) drew the figure to represent a male of *Thrips excellens*.

Hemithrips simplex Bagnall

(Text-fig. 76)

Hemithrips simplex Bagnall, 1923a : 38.

The specimen labelled ' Type ' is in a roughly cut piece of amber and is not easy to examine, the following observations therefore refer to the second specimen (no. 10,364) which is apparently conspecific. The antennae are well preserved, III and IV bearing an apical annular sensorium. Contrary to the original description the costal setae are as small as on the other two veins, the fore wing being very similar to that of *femoralis*. Three pairs of minute ocellar setae are visible, pair I anterolateral of the first ocellus, pair II posterolateral of that ocellus close to the compound eyes, pair III between the hind ocelli. This species is very similar to *femoralis* but the fore femora are not enlarged.

Holotype ♀. In Baltic Amber, Phys. Oek. Ges. No. 9854.I.14. No. 3.
♀. In Baltic Amber, Phys. Oek. Ges. No. 10,364.I.14. No. 1.

Hemithrips thoracicus Bagnall

Hemithrips thoracicus Bagnall, 1924g : 159.

This is based on Schlechtendal's illustration 12 which was considered originally to represent a form of *Thrips pennifera* Schlechtendal, 1887.

STENUROTHRIPS Bagnall

Stenurothrips Bagnall, 1914g : 484. Type-species *S. succineus*, by monotypy.

The tenth abdominal segment of the species in this genus is greatly elongate as in the recent genus *Macrurothrips*. From the form of the antennae *Stenurothrips* appears to be related to the Heterothripidae, whereas *Macrurothrips* is a Thripid with forked sense cones on antennals III and IV. Stannard (1956a) has discussed the systematic position of *Stenurothrips*.

Stenurothrips brevisetis Bagnall

Stenurothrips brevisetis Bagnall, 1923a : 37.

This is a very poorly preserved specimen on which little detail can be made out due to fractures in the amber. The fore wing venal setae however are about half as long as those in *succineus*.

Holotype ♀. In Baltic Amber, IB 428.

Stenurothrips succineus Bagnall

Stenurothrips succineus Bagnall, 1914g : 484–485.

Three pairs of ocellar setae are present, pair III arise within the ocellar triangle as indicated in Bagnall's original figure.

Holotype ♀. In Baltic Amber, without data.

THRIPIDAE

AMORPHOTHRIPS Bagnall

Amorphothrips Bagnall, 1924h : 252. Type-species *A. klebsi*, by monotypy.

Amorphothrips klebsi Bagnall

Amorphothrips klebsi Bagnall, 1924h : 252.

The description of this genus and species was quite inadequate and the type specimen has not been found in Bagnall's collection. The published data were ; sex uncertain, in Baltic Amber, Koenigsberg Coll., labelled Dr. Richard Klebs, Mus. Stanten and Becker.

Caliothrips cordatus (Bagnall) **comb. n.**

Selenothrips cordatus Bagnall, 1924e : 131.

The specimen is well cleared and the sculpture of the body is easily observed. The sculptured reticles of the head, pronotum and mesonotum have internal wrinkles, and although the abdomen is strongly contracted the sculpture is very similar to that found in *striatus* Hood. The first vein of the fore wing bears 5 + 2 setae, and the second vein bears 4 setae opposite the interval in the first vein.

Holotype ♀. In Baltic Amber, without data.

ELECTROTHRIPS Bagnall

Electrothrips Bagnall, 1924h : 251–252. Type-species *E. hystrix*, by monotypy.

Electrothrips hystrix Bagnall

Electrothrips hystrix Bagnall, 1924h : 252.

Three pairs of ocellar setae are developed, pair III arising within the ocellar triangle. Pairs II and III are very long, subequal in length to the single pair of elongate postoculars (50μ). The anterior margin of the pronotum is partially obscured but apparently lacks elongate setae, however there are two pairs of elongate postero-angulars. The costal setae on the fore wing are long and stout and the first vein is apparently close to the costa. The antennae are probably eight-segmented, V being longer and stouter than VI. Most of the specimen is obscured by fractures in the amber.

Holotype ♀. In Baltic Amber, without data.

EOCEPHALOTHRIPS Bagnall

Eocephalothrips Bagnall, 1924g : 160. Type-species *Thrips capito* Schlechtendal, 1887 : 579, by monotypy.

This genus was erected for the species *capito* which Schlechtendal figures as having the bases of the antennae broadly pyramidal. The text states that the median antennal segments are not clearly visible.

'*Heliothrips*' *scudderi* Bagnall

(Text-fig. 79)

Heliothrips scudderi Bagnall, 1924e : 131–132.

The wings are folded on the back of this specimen, but tergite II is apparently constricted basally and on tergite VII a curved wing retaining seta is visible on one side. No major setae can be distinguished on the fore wings although the first vein is apparently fused with the costa, and costal fringe cilia are present. The specimen appears to be congeneric with *Dinurothrips frontalis*, but surface damage to the amber piece and also internal fractures make definite generic placement impossible at present.

Holotype ♀. In Baltic Amber, IB 443.

Oxythrips physothripoides (Bagnall)

(Text-fig. 81)

Homothrips physothripoides Bagnall, 1924e : 131.
Oxythrips physothripoides (Bagnall) ; Mound, 1968b.

The holotype is a male and bears a pair of stout thorn-like setae medially on tergite IX. The single pair of pronotal postero-angular setae are about 40μ long. The first vein of the fore wing has a wide interval in the setal row and two setae apically, the second vein bears seven setae. The bases of the antennae obscure the head but a forked sense cone is visible on antennal IV.

Priesner (1929b) has described female specimens in the genus *Oxythrips* from Baltic Amber.

Holotype ♂. In Baltic Amber, Phys. Oek. Ges. No. 11,063.I.14. No. 9.

Physothrips connaticornis Bagnall

Physothrips connaticornis Bagnall, 1924e : 133.

The holotype female has not been found in Bagnall's Collection. The original publication gave no reference number.

'*Physothrips gracilicornis* Bagnall

Physothrips gracilicornis Bagnall, 1924e : 132.

The holotype female has not been found in Bagnall's Collection. The published data were Phys. Oek. Ges. No. 9855.I.14. No. 2.

Physothrips succineus Bagnall

Physothrips succineus Bagnall, 1924e : 132–133.

The specimen is a distorted teneral female and its generic position is not clear. There are three pairs of ocellar setae, pair III 30μ long, just within the lateral sides of the ocellar triangle. The postero-angular pronotal setae are 50μ long, but the posteromarginals are not visible. The first vein of the fore wing has two distal and nine basal setae, the second vein has thirteen setae. The eighth tergal comb is not visible.

Holotype ♀. In Baltic Amber, IB 411.

PROCEROTHRIPS Bagnall

Procerothrips Bagnall, 1924h : 252. Type-species *P. cylindricornis*, by monotypy.

Procerothrips cylindricornis Bagnall

Procerothrips cylindricornis Bagnall, 1924h : 252.

The holotype female has not been found in Bagnall's Collection. The published data were ; B.S.d. Univers. Koenigsberg ; Pr. 3B.671.

Taeniothrips clavicornis (Bagnall) **comb. n.**

Physothrips clavicornis Bagnall, 1924e : 133.

This species has four pairs of posteromarginal pronotal setae whereas *Physothrips* species usually have only two pairs. There are three pairs of ocellar setae present, pair III on the anterior margins of the ocellar triangle. The two pairs of pronotal postero-angular setae are 20µ long, the metanotum is reticulate and both pairs of metanotal setae are at the anterior margin. The second vein of the fore wing bears nine setae but the first vein apparently has only one medial and one distal seta. The eighth tergal comb is not visible but there are no sternal accessory setae. The antennae are distorted and not horizontal but a forked sense cone can be seen on antennal IV.

Holotype ♀. In Baltic Amber, IB 422.

PHLAEOTHRIPIDAE

Hoplothrips minutatim (Bagnall)

Trichothrips minutatim Bagnall, 1929c : 99–100.

The ventral surface of the prothorax is clearly visible and both praepectal and basisternal plates are absent.

Holotype ♀. In Baltic Amber, XB 2387.

LIOTRICHOTHRIPS Bagnall

Liotrichothrips Bagnall, 1929c : 97. Type-species *L. hystrix*, by original designation.

In the three following species the pelta is broad, and both the metanotum and pelta are reticulate. The median metanotal setae are stout and the tergites each have one pair of wing retaining setae.

Liotrichothrips antiquus Bagnall

Liotrichothrips antiquus Bagnall, 1929c : 98–99.

Holotype ♀. In Baltic Amber, XIII. B980.

Liotrichothrips discrepans Bagnall

Liotrichothrips discrepans Bagnall, 1929c : 99.

Holotype ♀. In Baltic Amber, IB 432.

Liotrichothrips hystrix Bagnall .

Liotrichothrips hystrix Bagnall, 1929c : 97–98.

Holotype ♀. In Baltic Amber, without data.

Phlaeothrips schlechtendali Bagnall

Phloeothrips schlechtendali Bagnall, 1929c : 96.

This is a true *Phlaeothrips* species as indicated by the tubercles on the cheeks, the reticulate metanotum and the broad pelta.

Holotype ♀. In Baltic Amber, 3618.V.595.

SCHLECHTENDALIA Bagnall

Schlechtendalia Bagnall, 1929c : 96. Type-species *S. longitubus*, by monotypy.

Schlechtendalia longituba Bagnall

Schlechtendalia longitubus Bagnall, 1929c : 97.

Although antennal segment eight is broad basally it is not closely united to segment seven.

Holotype ♀. In Baltic Amber, without data.

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